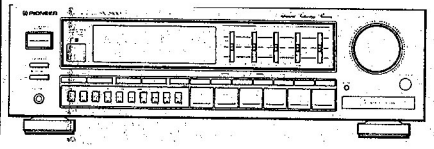
PIONEER®
The Art of Entertainment

Service Manual



STEREO RECEIVER

SX-2900
SX-2800
SX-1900
SX-240

MODELS SX−2900, SX−2800, SX−1900 AND SX−240 HAVE FOLLOWING VERSIONS :

Type	Applicable model				Power requirement	Export destination
	SX−2900	SX−2800	SX−1900	SX−240		
KUC	O	O	O	O	AC 120V only	U.S.A. and Canada.
SD	O	—	O	—	AC 110V, 120−127V, 220V, 240V (switchable)	Kingdom of Saudi Arabia and General market.
KUCXJ	—	—	O	—	AC 120V only	U.S.A. and Canada.

- **This manual is applicable to the SX−2900/KUC, SD, SX−2800/KUC, SX−1900/KUC, SD and SX−240/KUC types.**
- **As to the SX−2900/SD, SX−2800/KUC, SX−1900/KUC, SD and SX−240/KUC types, refer to pages 31−34.**
- **As to the SX−1900/KUCXJ type, refer to applicable service manual.**
- **Ce manuel pour le service comprend les explications de réglage en français.**
- **Este manual de servicio trata del método ajuste escrito en español.**

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This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

1. SAFETY INFORMATION

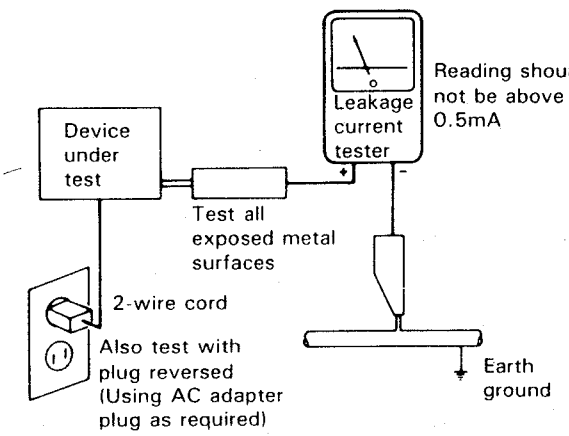
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
Device under test
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS, PACKING AND PARTS LIST

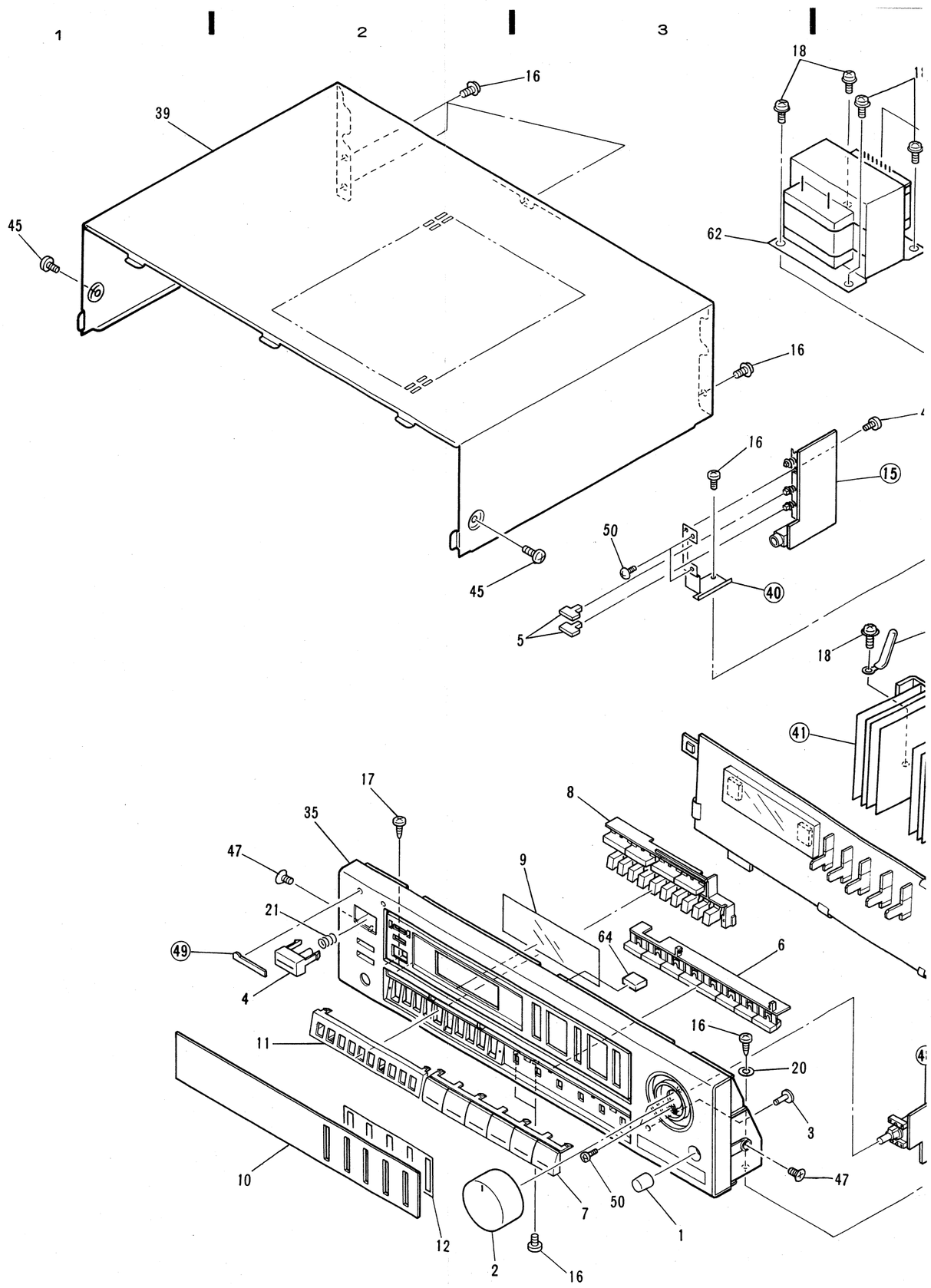
NOTES:

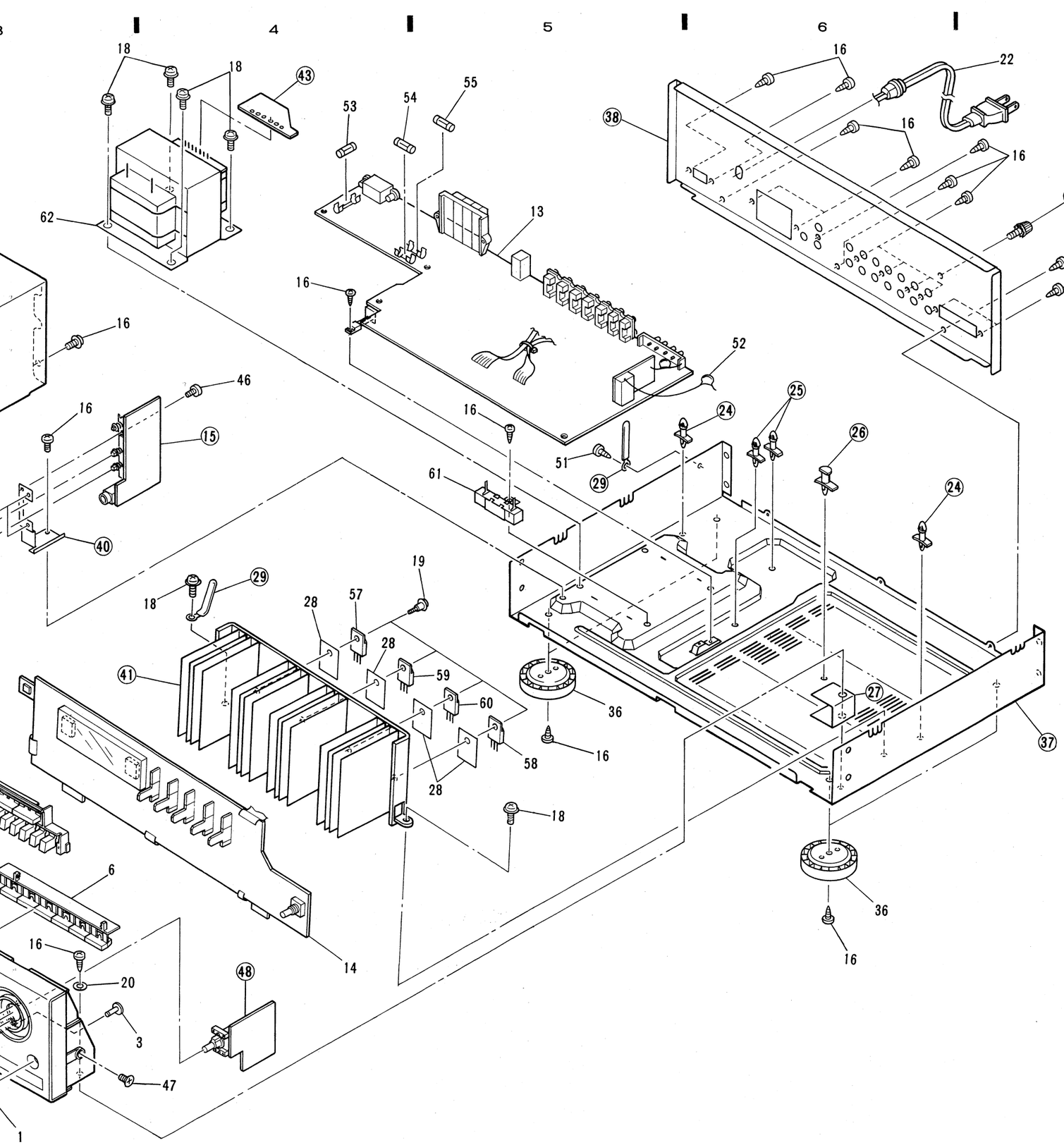
- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts list of Exterior and packing

Mark	No.	Description	Parts No.
	1	ROTARY KNOB (BALANCE)	AAB1133
	2	MASTER VOL ASSY (VOLUME)	AAB1207
	3	TACT KNOB (RETURN)	AAD1398
	4	KNOB (POWER)	AAD1661
	5	SPEAKER KNOB (SPEAKERS)	AAD1662
	6	TUNER FUNCTION KNOB	AAD1663
	7	FUNCTION KNOB	AAD1664
	8	STATION KNOB	AAD1924
	9	PLATE	AAK1833
	10	ACRYLIC PANEL	AAK2092
	11	STATION SASH	AAP1111
	12	EQUALIZER SASH	AAP1112
⊙	13	COMPLEX ASSEMBLY	AWZ3267
⊙	14	CONTROL ASSEMBLY	AWZ3268
	15	SP SWITCH ASSEMBLY	
	16	SCREW	ABA-298
	17	SCREW (STEEL)	ABA1009
	18	SCREW	ABA1054
	19	SCREW	ABA1082
	20	WASHER	ABF1017
	21	COIL SPRING	ABH1064
⚠	22	AC POWER CORD	ADG1057
	23	FM ANTENNA	ADH1004
	24	PCB SUPPORT	
	25	PCB SUPPORT	
	26	PCB SUPPORT	
	27	PVC PLATE	
	28	SHEET	AEE1014
	29	CLAMPER	
	30	"AAA" DRY SELL	
	31	STYROL PROTECTOR	AHA1015
	32	PACKING CASE	AHD1985
	33	PACKING SHEET	AHG1016
	34	TERMINAL SCREW	
	35	FRONT PANEL	AMB1753
	36	INSULATOR ASSY	AMR2140
	37	CHASSIS	
	38	REAR PANEL	
	39	BONNET CASE	ANE1215
	40	PCB INDICATOR HOLDER	

Mark	No.	Description	Parts No.
	41	HEAT SINK	
	42	OPERATING INSTRUCTIONS (English)	ARB1286
	43	TRANS ASSEMBLY	
	44	REMOTE CONTROL UNIT (CU−SX021)	AXD1186
	45	SCREW	BBT30P060FZK
	46	SCREW	BPZ26P080FMC
	47	SCREW	CBZ30P060FZK
	48	VR ASSEMBLY	
	49	NAME PLATE	
	50	SCREW	PMZ30P060FCU
	51	SCREW	VCZ30P060FCU
	52	CERAMIC CAPACITOR (C3)	CKDYF102Z50
⚠	53	FUSE (4A/125V, FU1)	AEK−100
⚠	54	FUSE (1.25A/125V, FU3)	AEK−120
⚠	55	FUSE (1.25A/125V, FU4)	AEK−120
	56	LOOP ANTENNA	ATB1005
⚠	57	TRANSISTOR (Q1)	2SC3181N
⚠	58	TRANSISTOR (Q2)	2SC3181N
⚠	59	TRANSISTOR (Q3)	2SA1264N
⚠	60	TRANSISTOR (Q4)	2SA1264N
	61	RESISTOR (750Ω/10W, R1)	ACN1083
⚠	62	POWER TRANSFORMER (T1)	ATS1248
	63	BATTERY COVER	PZN1001
	64	PVC SHEET	AED1117

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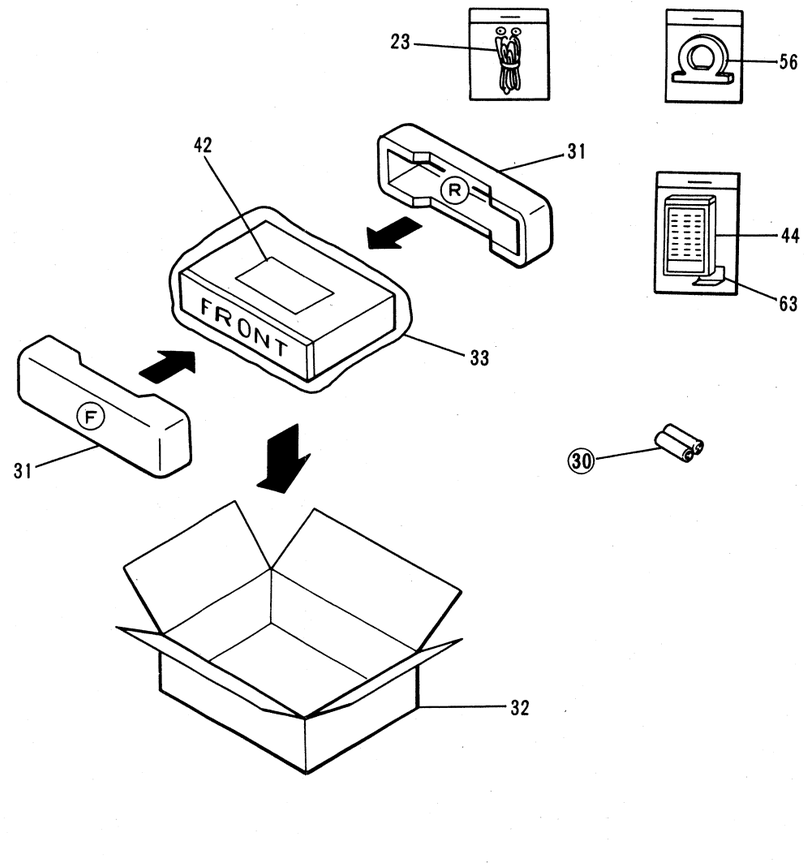
23
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R
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FRONT
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F
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A

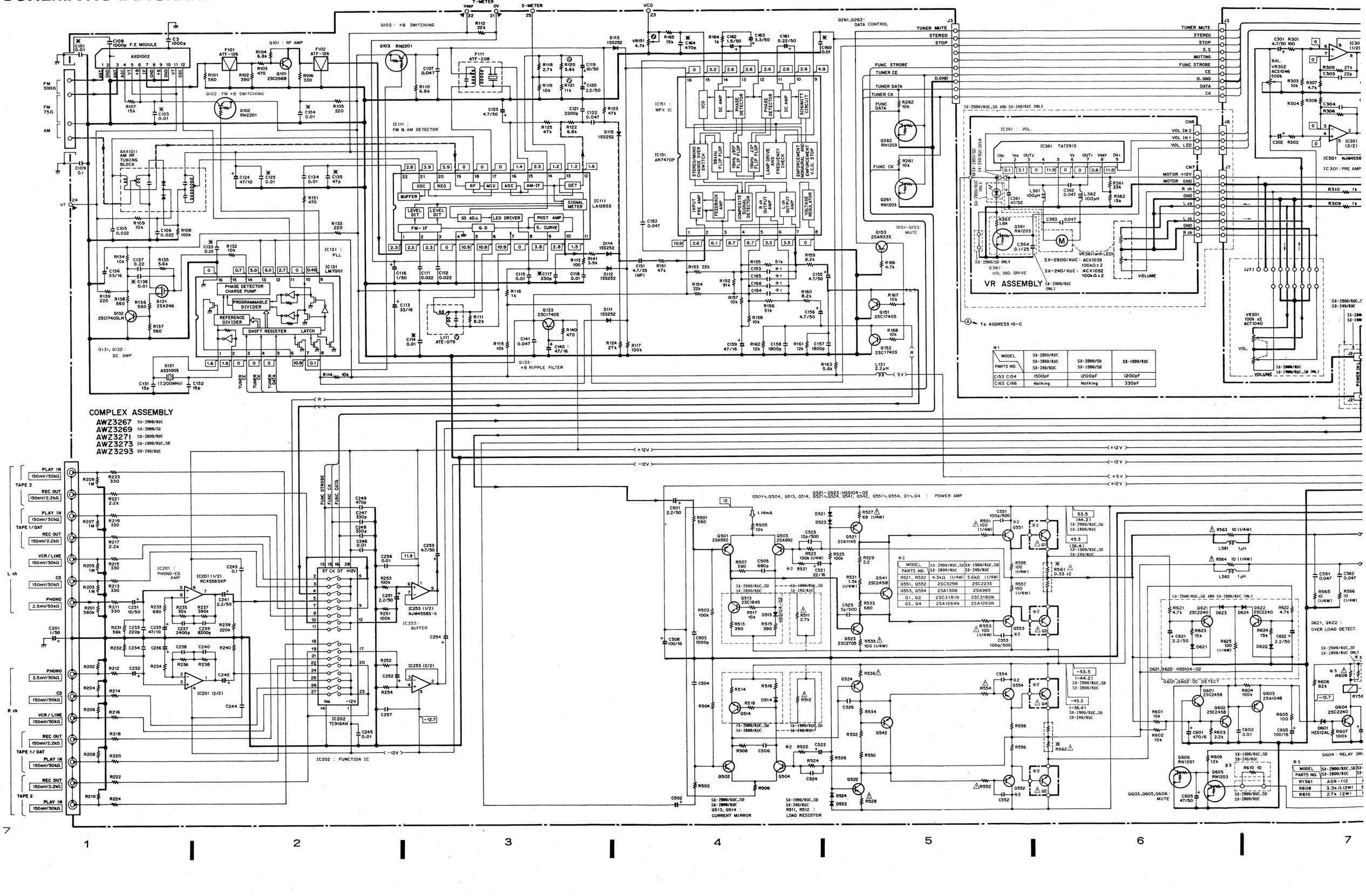
B

C

D

6

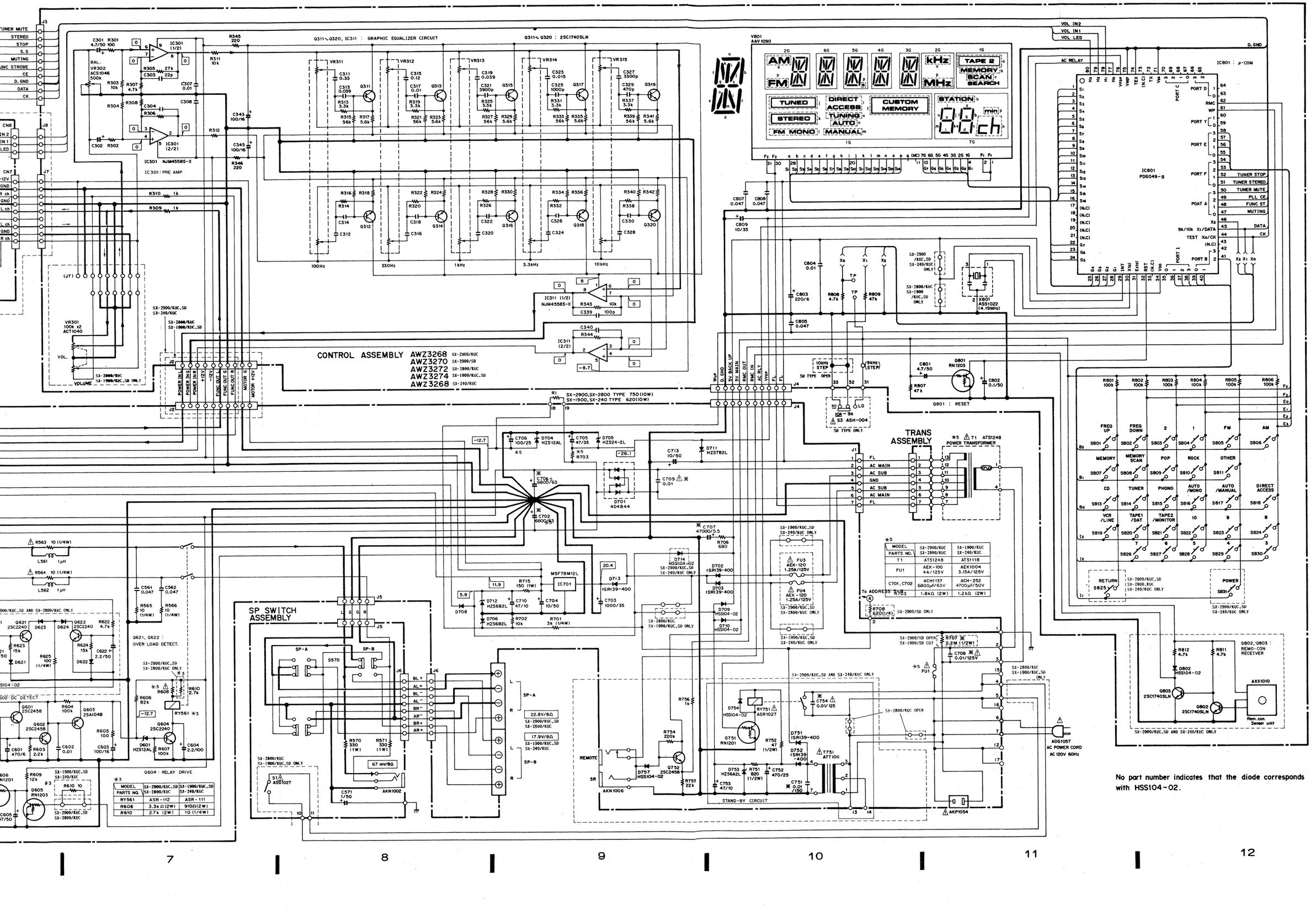
3. SCHEMATIC DIAGRAM



MODEL / PARTS NO.	SX-2900/KUC SX-2800/KUC SX-240/KUC	SX-2900/SD SX-1900/SD	SX-1900/KUC
C153 C154	1500pF	1200pF	1200pF
C165 C166	Nothing	Nothing	330pF

MODEL / PARTS NO.	SX-2900/KUC,SD SX-2800/KUC	SX-1900/KUC,SD SX-240/KUC
R521, R522	4.3kΩ (1/4W)	5.6kΩ (1/4W)
Q551, Q552	2SC3298	2SC2235
Q553, Q554	2SA1306	2SA965
Q1, Q2	2SC3181N	2SC3180N
Q3, Q4	2SA1264N	2SA1263N

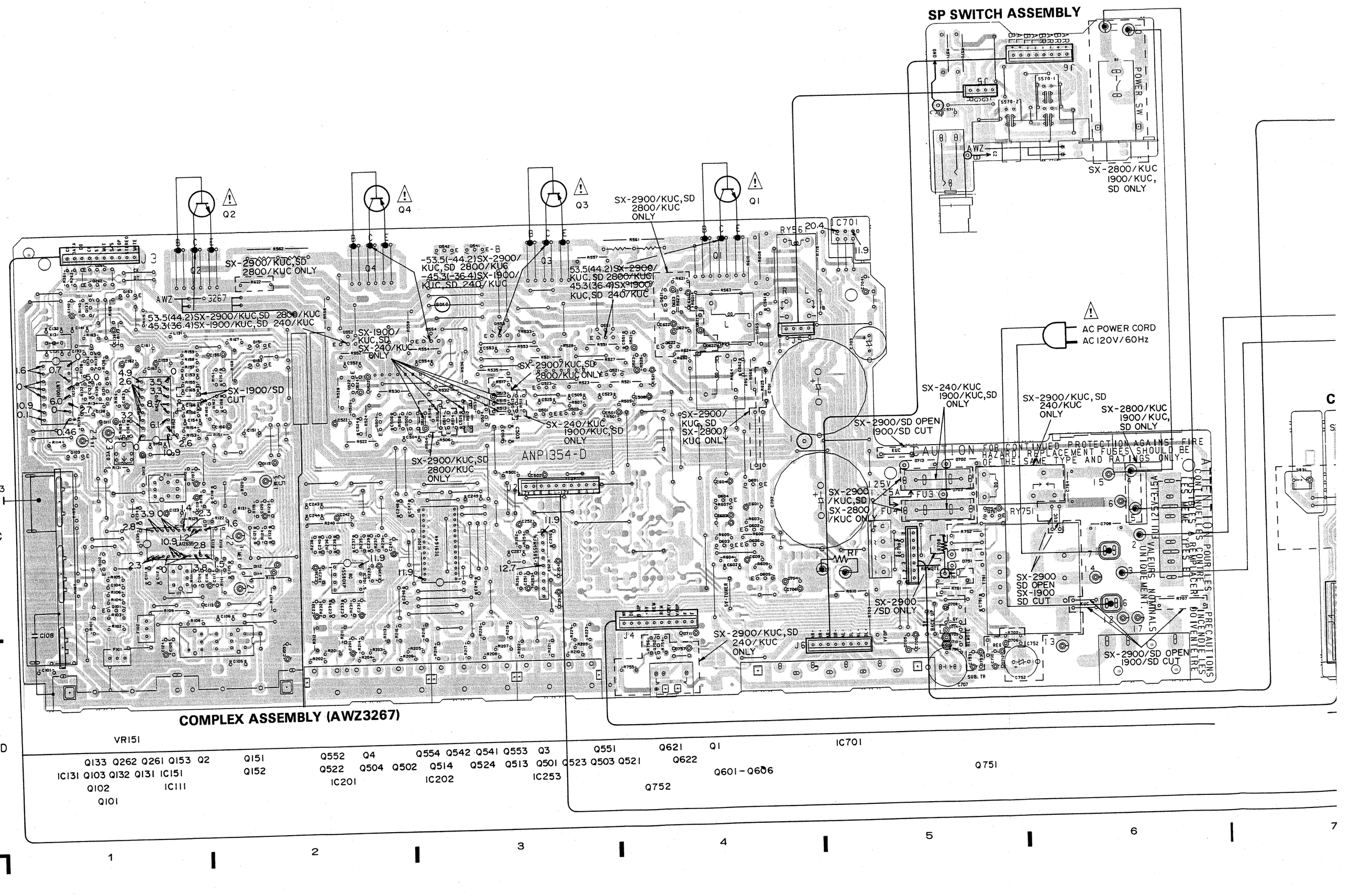
MODEL / PARTS NO.	SX-2900/KUC,SD SX-2800/KUC
RY561	ASR-112
R608	3.3kΩ (2W)
R610	2.7k (2W)



MODEL	SX-2900/KUC SX-2800/KUC	SX-1900/KUC SX-240/KUC
PARTS NO.		
T1	ATS1248	ATS1118
FU1	AEK-100 4A/125V	AEK1004 3.15A/125V
C701, C702	ACH1137 6800μF/63V	ACH-252 4700μF/50V
R703	1.8kΩ (2W)	1.2kΩ (2W)

MODEL	SX-2900/KUC,SD	SX-1900/KUC,SD
PARTS NO.	SX-2800/KUC	SX-240/KUC
RY561	ASR-112	ASR-111
R608	3.3k Ω (2W)	910Ω(2W)
R610	2.7k (2W)	10 (1/4W)

No part number indicates that the diode corresponds with HSS104-02.


SP SWITCH ASSEMBLY
POWER SW
SX-2800/KUC 1900/KUC, SD ONLY
AWZ
Q2
Q4
Q3
Q1
SX-2900/KUC,SD 2800/KUC ONLY
SX-2900/KUC,SD 2800/KUC ONLY
53.5(44.2)SX-2900/KUC,SD 2800/KUC
45.3(36.4)SX-1900/KUC,SD 240/KUC
-53.5(-44.2)SX-2900/KUC,SD 2800/KUC
-45.3(-36.4)SX-1900/KUC,SD 240/KUC
SX-1900/KUC,SD SX-240/KUC ONLY
SX-1900/SD CUT
SX-2900/KUC,SD 2800/KUC ONLY
SX-240/KUC 1900/KUC,SD ONLY
SX-2900/KUC,SD 2800/KUC ONLY
SX-2900/KUC,SD 240/KUC ONLY
SX-2900/KUC, SD SX-2800/KUC ONLY
SX-240/KUC 1900/KUC,SD ONLY
SX-2900/SD OPEN 1900/SD CUT
SX-2900/KUC, SD 240/KUC ONLY
SX-2800/KUC 1900/KUC, SD ONLY
AC POWER CORD
AC 120V/60Hz
CAUTION FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES REMPLACER PAR DES FUSIBLES DE MEME TYPES ET VALEURS NOMINALS.
SX-2900/KUC,SD 1.25A
SX-2800/KUC ONLY
SX-2900/SD ONLY
SX-2900 SD OPEN SX-1900 SD CUT
SX-2900/SD OPEN 1900/SD CUT
ANP1354-D
IC701
RY751
FU751 125V-3.15A
FU3
FU4
J4
J6
SUB. TR
REMOTE
BACK UP
VFDP
SF-TUNER
RY56
RT
C108
C752
C707
C708
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C740
C741
C742
C743
C744
C745
C746
C747
C748
C749

1 .RESISTORS
Indicated in Ω,1/4W,1/8W, ±5%,tolerance unless otherwise noted k: kΩ, M: MΩ,(F):±1%,(G):±2%, (K):±10%,(M):±20% tolerance.

2 .CAPACITORS
Indicated in capacity(μF)/volutage(V) unless otherwise noted P:PF.
Indication without voltage is 50V except electrolytic capacitor.

3 .VOLTAGE CURRENT
V : Signal voltage at (65W+65W 8Ω) output (1kHz).
: DC voltage (V) at no input signal.
Value in ( ) is DC voltage at rated power.
⇦mA : DC current at no input signal.

4 .OTHERS
➡ : Signal route
⊘ : Adjusting point
The ⚠ mark found on some components parts indicates the importance of the safety fuctor of the parts.
Therefore, when replacing, be sure to use parts of indentical designation.
※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5 .SWITCHES

S2 VOLTAGE SELECTOR
110/120-127/220/240V
(SX-2900/SD,SX-1900/SD ONLY)

S3 SLIDE SW 10k/9k
(SX-2900/SD,SX-1900/SD ONLY)

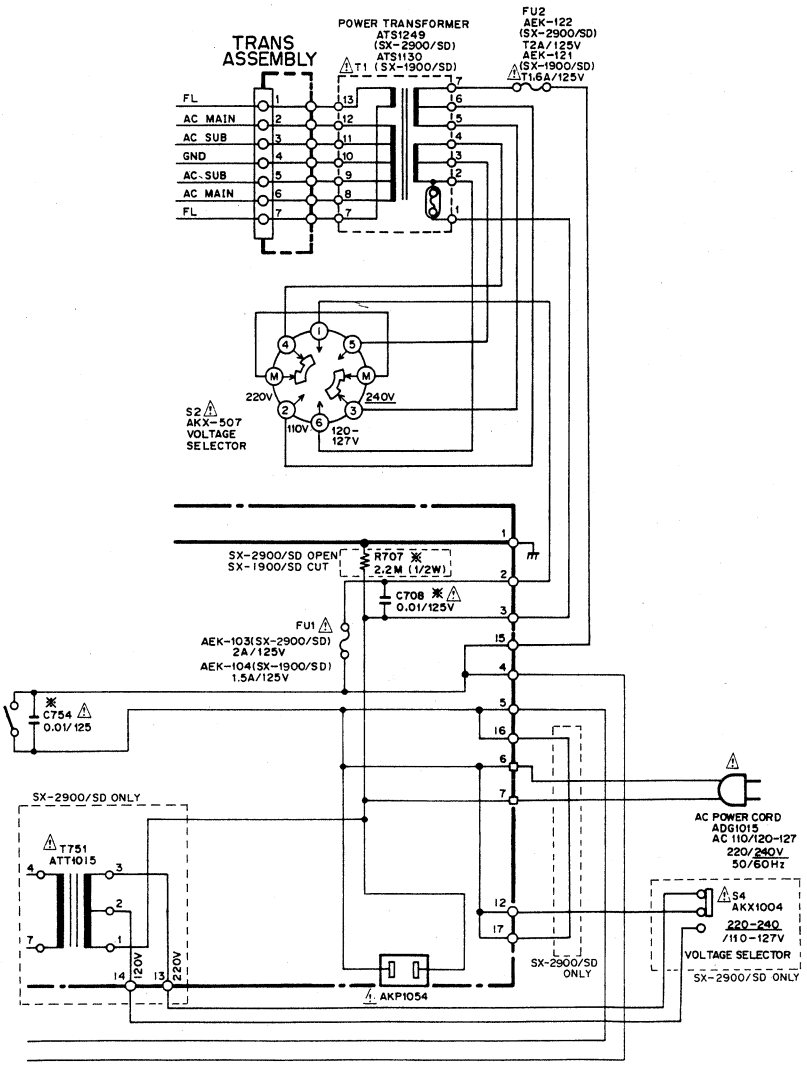
S4 VOLTAGE SELECTOR
220-240V/110/127V
(SX-2900/SD ONLY)

SP SWITCH assembly
S570 SPEAKER (SP-A/SP-B)
S1 POWER
(SX-2800/KUC,SX-1900/KUC,SD ONLY)

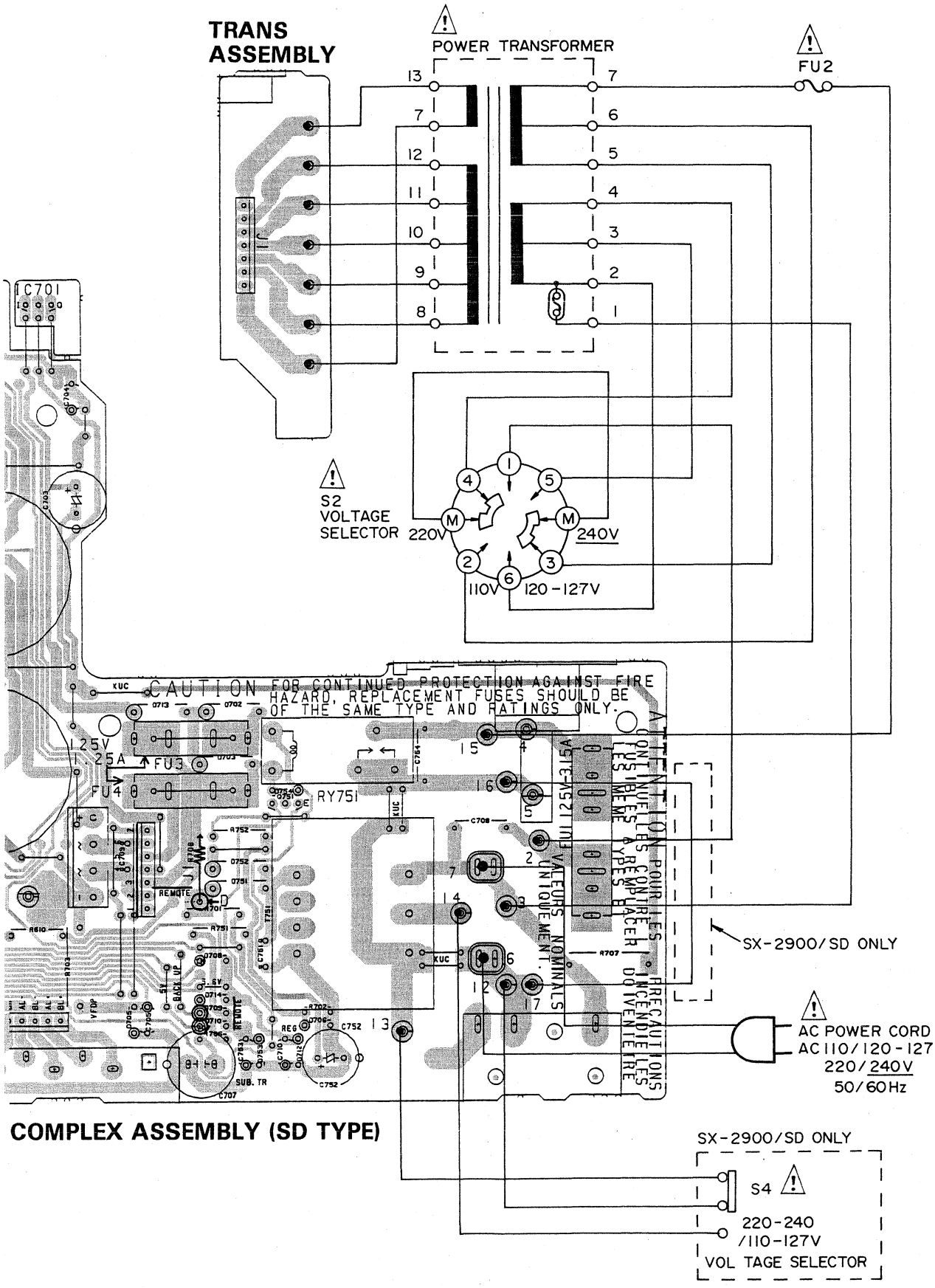
CONTROL assembly
S801 FREQ UP
S802 FREQ DOWN
S803 2
S804 1
S805 FM
S806 AM
S807 MEMORY
S808 MEMORY SCAN
S809 POP
S810 ROCK
S811 OTHER
S813 CD
S814 TUNER
S815 PHONO
S816 AUTO/MONO
S817 AUTO/MANUAL
S818 DIRECT ACCESS
S819 VCR/LINE
S820 TAPE1/DAT
S821 TAPE2/MONITOR
S822 10
S823 9
S824 8
S825 RETURN(SX-2900/KUC,SD, SX-2800/KUC, SX-240/KUC ONLY)
S826 7
S827 6
S828 5
S829 4
S830 3
S831 POWER(SX-2900/KUC,SD, SX-240/KUC ONLY)

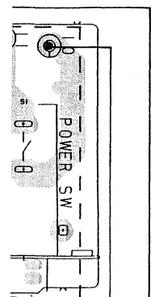
The underline indicates the switch position.

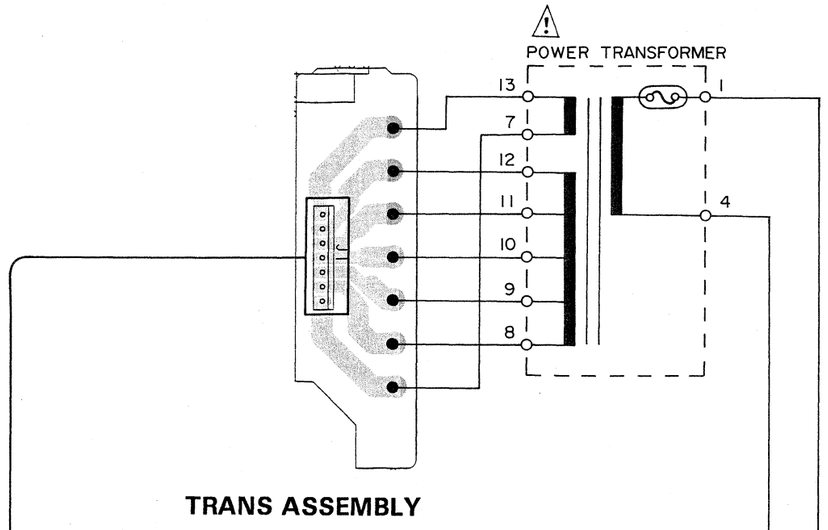
SCHEMATIC DIAGRAM
(For SX−2900/SD and SX−1900/SD types)



4. P.C.BOARDS CONNECTION DIAGRAM

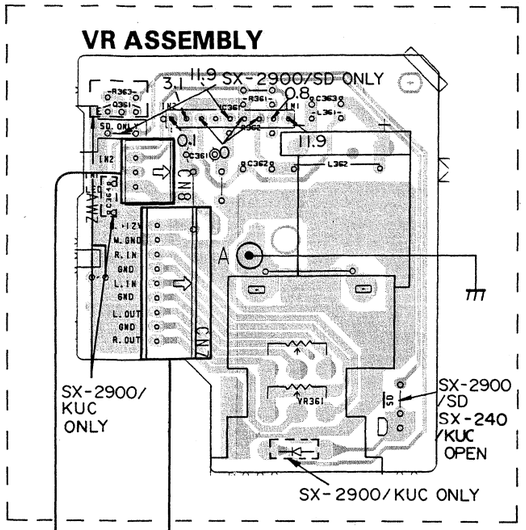






TRANS ASSEMBLY

SX-2900/KUC,SD
240/KUC ONLY



NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

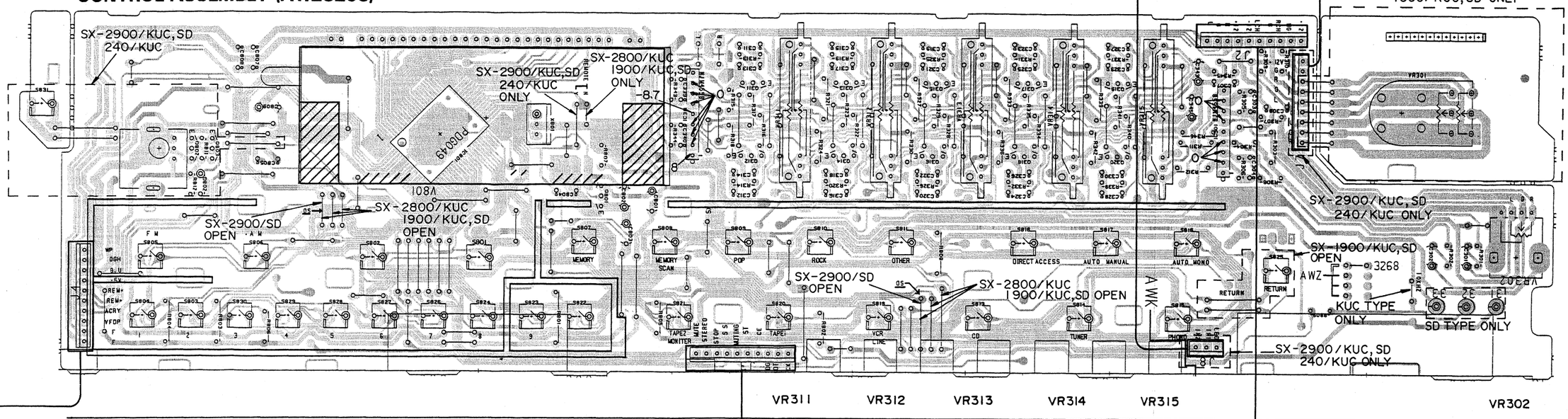
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 (E C B)	or	Transistor
Q215 (E C B)	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513	+	Capacitor (Polarity)
C518		Capacitor (Non-polarity)

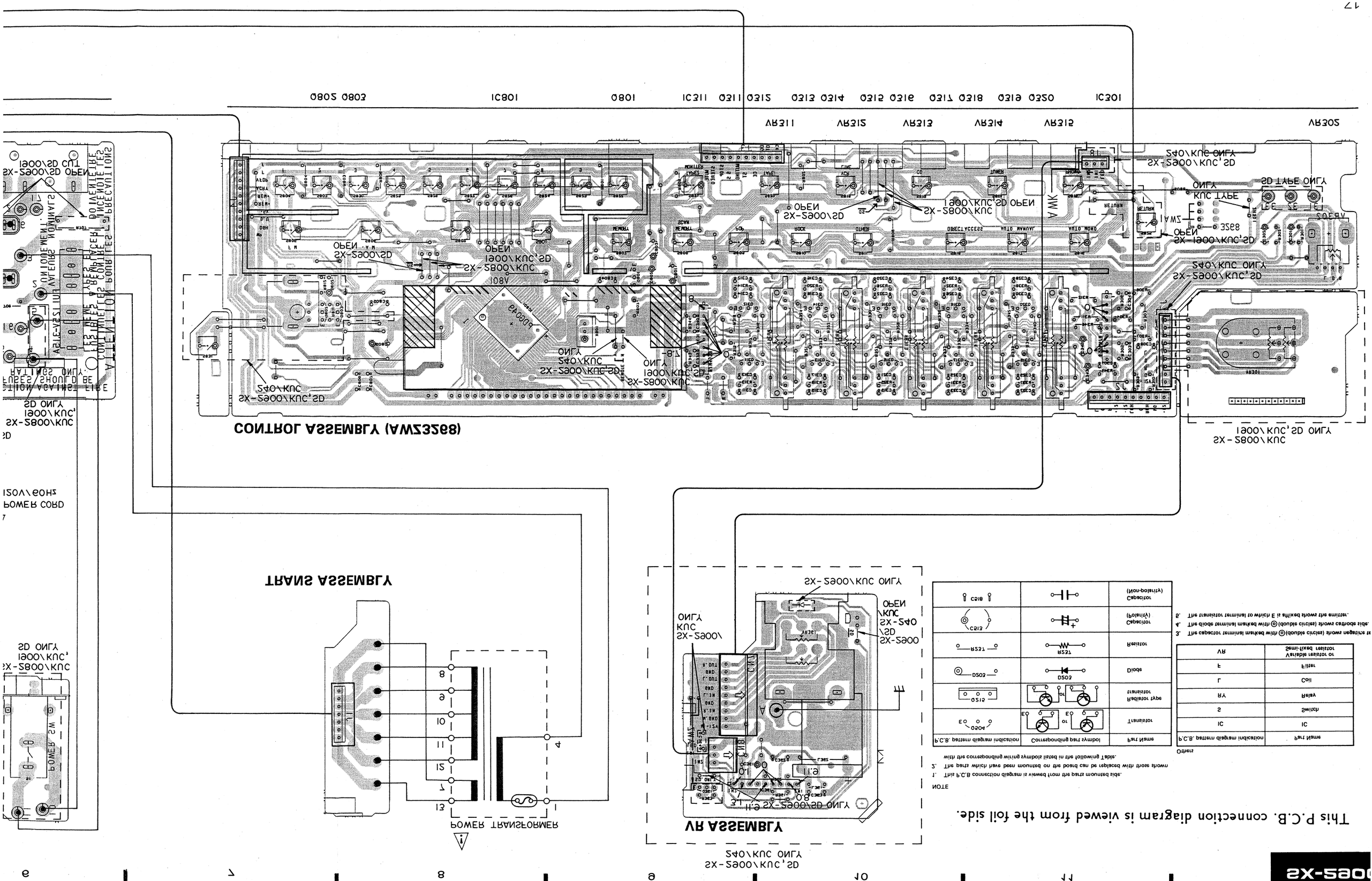
Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capactor terminal marked with ◎(double circles) shows negatine termianl.
4. The diode terminal marked with ◎(double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

CONTROL ASSEMBLY (AWZ3268)




CONTROL ASSEMBLY (AWZ3268)
SX-5005\KUC,SP ONLY
SX-5005\KUC
SX-5005\KUC,SP
SX-5005\KUC,SP OPEN
SX-5005\KUC OPEN
SX-5005\SP OPEN
SX-5005\KUC,SP ONLY
SX-5005\KUC ONLY
SX-5005\SP
SX-5005\KUC,SP ONLY
SX-5005\KUC ONLY
SX-5005\KUC,SP ONLY
SX-5005\KUC
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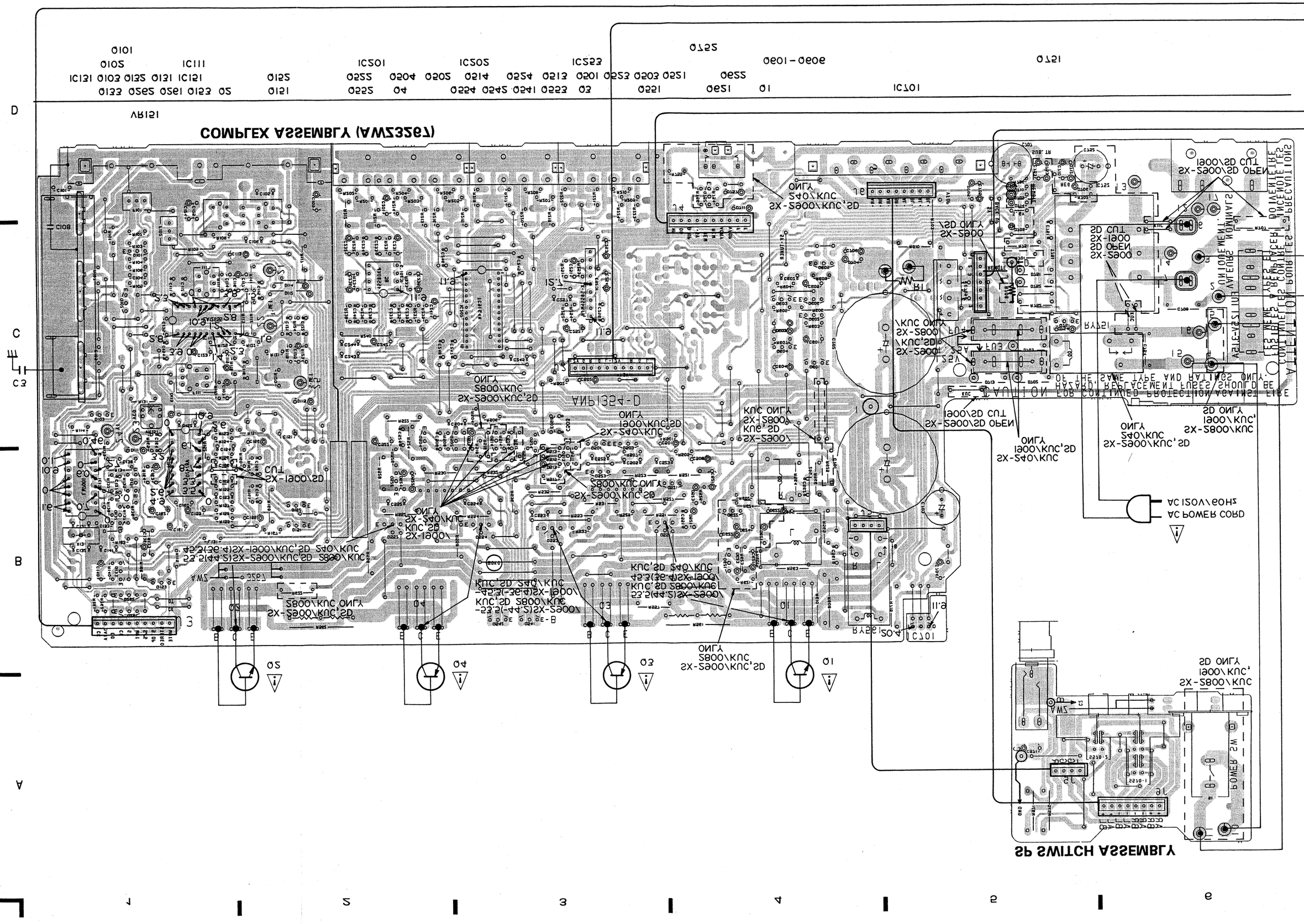
SX-5005\KUC
SX-5005\KUC,SP ONLY
SX-5005\KUC


COMPLEX ASSEMBLY (AWZ3567)
SP SWITCH ASSEMBLY
POWER SW
AC POWER CORD
AC 120V/60Hz
CAUTION FOR CONTINUED PROTECTION AGAINST FIRE
HAZARD, REPLACEMENT FUSES SHOULD BE
OF THE SAME TYPE AND RATINGS ONLY.

5. P.C.B 's PARTS LIST

NOTES:

- *Parts without part number cannot be supplied.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	*56 × 10¹*	*561*	*RD1/4PS 5 6 1 J*
47kΩ	*47 × 10³*	*473*	*RD1/4PS 4 7 3 J*
0.5Ω	*0R5*		*RN2H 0 R 5 K*
1Ω	*010*		*RS1P 0 1 0 K*

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ	*562 × 10¹*	*5621*	*RN1/4SR 5 6 2 1 F*

Mark	No.	Description	Parts No.
SP SWITCH ASSEMBLY			
SWITCH			
	S570	PUSH SWITCH	SUJ5LXYS
CAPACITOR			
	C571	ELECTR.CAPACITOR	CEAS010M50
RESISTORS			
	R570, 571	METAL OXIDE RESISTOR	RS1PMF331J
OTHERS			
		JACK (HEAD PHONE)	AKN1002
VR ASSEMBLY			
SEMICONDUCTORS			
	IC361	MECHANISM DRIVER IC	TA7291S
	Q361	TRANSISTOR	RN1203
COILS			
	L361, 362	AXIAL INDUCTOR	LAU101K
CAPACITORS			
	C361	ELECTR.CAPACITOR	CEAS470M50
	C362, 363	CERAMIC CAPACITOR	CKDYF473Z50
	C364	CERAMIC CAPACITOR	CKDYX104M25
RESISTORS			
	VR361	VARIABLE RESISTOR	ACX1035
		Other resistors	RD1/8PM□□□J

Mark	No.	Description	Parts No.
OTHERS			
	CN7	CONNECTOR(9P)	KPC9
	CN8	JUMPER CONNECTOR 3-P	KPC3
⊙ COMPLEX ASSEMBLY (AWZ3267)			
SEMICONDUCTORS			
	IC111	AM/FM IC	LA1265S
	IC131	PLL IC	LM7001
	IC151	MPX IC	AN7470P
	IC201	OP-AMP IC	RC4558DXP
	IC202	E-SW IC	TC9164N
	IC253	OP-AMP IC	NJM4558S-X
	IC701	REGULATOR IC	M5F78M12L
	Q101	TRANSISTOR	2SC2668
	Q102, 103	TRANSISTOR	RN2201
	Q131	N-FET	2SK246
	Q132	TRANSISTOR	2SC1740SLN
	Q133	TRANSISTOR	2SC1740S
	Q151, 152	TRANSISTOR	2SC1740S
	Q153	TRANSISTOR	2SA933S
	Q261, 262	TRANSISTOR	RN1203
	Q501–504	TRANSISTOR	2SA992
	Q513, 514	TRANSISTOR	2SC1845
	Q521, 522	TRANSISTOR	2SA1145
	Q523, 524	TRANSISTOR	2SC2705
	Q541, 542	TRANSISTOR	2SC2458
	Q551, 552	TRANSISTOR	2SC3298
	Q553, 554	TRANSISTOR	2SA1306
	Q601, 602	TRANSISTOR	2SC2458
	Q603	TRANSISTOR	2SA1048
	Q604	TRANSISTOR	2SC2240

Mark	No.	Description	Parts No.
	Q605	TRANSISTOR	RN1203
	Q606	TRANSISTOR	RN1201
	Q621, 622	TRANSISTOR	2SC2240
	Q751	TRANSISTOR	RN1201
	Q752	TRANSISTOR	2SC2458
	D111−115	DIODE	1SS252
	D513, 514	DIODE	HSS104-02
	D521−524	DIODE	HSS104-02
	D601	ZENER DIODE	HZS12AL
	D621−624	DIODE	HSS104-02
	D701	DIODE	4D4B44
	D702, 703	DIODE	1SR139-400
	D704	ZENER DIODE	HZS12AL
	D705	ZENER DIODE	HZS24-2L
	D706	ZENER DIODE	HZS6B2L
	D708−710	DIODE	HSS104-02
	D711	ZENER DIODE	HZS7B2L
	D712	ZENER DIODE	HZS6B2L
	D713	DIODE	1SR139-400
	D714	DIODE	HSS104-02
	D751, 752	DIODE	1SR139-400
	D753	ZENER DIODE	HZS6A2L
	D754, 757	DIODE	HSS104-02
RELAIES			
	RY561	RELAY	ASR-112
	RY751	RELAY	ASR1027
COILS & TRANSFORMER			
	F101, 102	CERAMIC FILTER	ATF-126
	F111	CERAMIC FILTER	ATF-208
	L111	COIL	ATE-079
	L131	AXIAL INDUCTOR	LAU2R2M
	L561, 562	COIL	ATH1004
	T751	POWER TRANSFORMER	ATT1011
CAPACITORS			
	C101	CERAMIC CAPACITOR	ACG1021
	C103, 104	CERAMIC CAPACITOR	ACG1021
	C105, 106	CERAMIC CAPACITOR	CKDYF223Z50
	C107	CERAMIC CAPACITOR	CKDYF473Z50
	C108	CERAMIC CAPACITOR	CKDYF102Z50
	C109	CERAMIC CAPACITOR	CKDYX104M25
	C111, 112	CERAMIC CAPACITOR	CKDYF223Z50
	C113	ELECTR.CAPACITOR	CEAS330M16
	C114	CERAMIC CAPACITOR	ACG1021
	C115	CERAMIC CAPACITOR	CKDYF103Z50
	C116	ELECTR.CAPACITOR	CEAS010M50
	C117	CERAMIC CAPACITOR	ACG1018
	C118	CERAMIC CAPACITOR	CKDYF103Z50
	C119	ELECTR.CAPACITOR	CEAS100M50
	C120	ELECTR.CAPACITOR	CEAS2R2M50

Mark	No.	Description	Parts No.
	C121	CERAMIC CAPACITOR	CKDYF222Z50
	C122	CERAMIC CAPACITOR	CKDYF473Z50
	C123	ELECTR.CAPACITOR	CEAS4R7M50
	C124	ELECTR.CAPACITOR	CEAS470M10
	C125	CERAMIC CAPACITOR	ACG1021
	C131, 132	CERAMIC CAPACITOR	CCDCH150J50
	C133	CERAMIC CAPACITOR	ACG1021
	C134	CERAMIC CAPACITOR	CKDYF103Z50
	C135	CERAMIC CAPACITOR	ACG1016
	C136	ELECTR.CAPACITOR	CEAS330M16
	C137	AUDIO FILM CAPACITOR	CFTXA224J50
	C138	CERAMIC CAPACITOR	ACG1021
	C140	ELECTR.CAPACITOR	CEAS470M16
	C141	CERAMIC CAPACITOR	CKDYF473Z50
	C151	ELECTR.CAPACITOR	CEANP4R7M35
	C152	CERAMIC CAPACITOR	CKDYF473Z50
	C153, 154	MYLOR FILM CAPACITOR	CQMA152J50
	C155, 156	ELECTR.CAPACITOR	CEAS4R7M50
	C157, 158	CERAMIC CAPACITOR	CKDYB182K50
	C159	ELECTR.CAPACITOR	CEAS470M16
	C160	CERAMIC CAPACITOR	ACG1021
	C161	ELECTR.CAPACITOR	CEASR22M50
	C162	ELECTROLYTIC CAPACIT	CEAS1R5M50
	C163	ELECTR.CAPACITOR	CEAS3R3M50
	C164	CAPACITOR	ACE1039
	C201	ELECTR.CAPACITOR	CEAS010M50
	C231, 232	ELECTR.CAPACITOR	CEAS100M50
	C233, 234	CERAMIC CAPACITOR	CCCSL221J50
	C235, 236	ELECTR.CAPACITOR	CEAS470M10
	C237, 238	MYLOR FILM CAPACITOR	CQMA242J50
	C239, 240	MYLOR FILM CAPACITOR	CQMA822K50
	C241, 242	ELECTR.CAPACITOR	CEAS2R2M50
	C243−246	CERAMIC CAPACITOR	CKDYF103Z50
	C247, 248	CERAMIC CAPACITOR	CKCYB331K50
	C249	CERAMIC CAPACITOR	CKCYB471K50
	C251, 252	ELECTR.CAPACITOR	CEAS2R2M50
	C253, 254	ELECTR.CAPACITOR	CEAS4R7M50
	C256, 257	CERAMIC CAPACITOR	CKDYF103Z50
	C501, 502	ELECTR.CAPACITOR	CEAS2R2M50
	C503, 504	CERAMIC CAPACITOR	CKDYB102K50
	C505, 506	CERAMIC CAPACITOR	CKDYB681K50
	C508	ELECTR.CAPACITOR	CEAS101M16
	C521, 522	ELECTR.CAPACITOR	CEAS220M16
	C523, 524	CERAMIC CAPACITOR	CCCSL120K500
	C525, 526	CERAMIC CAPACITOR	CCCSL050C500

Mark	No.	Description	Parts No.
	C551–554	CERAMIC CAPACITOR	CCCSL101K500
	C561, 562	MYLOR FILM CAPACITOR	CQMA473K50
	C601	ELECTROLYTIC CAPACIT	CEAS471M6
	C602	CERAMIC CAPACITOR	CKDYF103Z50
	C603	ELECTR.CAPACITOR	CEAS101M16
	C604	ELECTROLYTIC CAPACIT	CEAS2R2M100
	C605	ELECTR.CAPACITOR	CEAS4R7M50
	C621, 622	ELECTR.CAPACITOR	CEAS2R2M50
	C701, 702	ELECTROLYTIC CAPACIT	ACH1137
	C703	ELECTROLYTIC CAPACIT	CEAS102M35
	C704	ELECTR.CAPACITOR	CEAS100M50
	C705	ELECTROLYTIC CAPACIT	CEAS470M35
	C706	ELECTR.CAPACITOR	CEAS101M25
	C707	CEA (47000/5.5V)	ACH1037
⚠	C708	CKA (0.01/AC400V)	ACG1002
	C709	CKA (0.01/AC250V)	ACG1005
	C710	ELECTR.CAPACITOR	CEAS470M10
	C751	CKA (0.01/AC250V)	ACG1005
	C752	ELECTROLYTIC CAPACIT	CEAS471M25
	C753	ELECTR.CAPACITOR	CEAS470M10
⚠	C754	CKA (0.01/AC400V)	ACG1002

RESISTORS

	VR151	VR (4.7K)	ACP1024
	R521, 522	CARBON FILM RESISTOR	RD1/4PM432J
	R523	CARBON FILM RESISTOR	RD1/4PM104J
⚠	R527, 528	CARBON FILM RESISTOR	RD1/4PMF680J
	R531, 532	CARBON FILM RESISTER	RD1/4PM152J
⚠	R535, 536	FUSLIBLE RESISTOR	RFA1/4PS101J
⚠	R551–554	FUSLIBLE RESISTOR	RFA1/4PS101J
	R555–558	CARBON FILM RESISTOR	RD1/4PMF101J
⚠	R561, 562	RESISTOR (0.33, 5W)	ACN-139
⚠	R563, 564	CARBON FILM RESISTOR	RD1/4PMF100J
	R565, 566	CARBON FILM RESISTOR	RD1/4PMF100J
⚠	R608	METAL OXIDE RESISTOR	RS2LMF332J
⚠	R610	METAL OXIDE RESISTOR	RS2LMF272J
	R625	CARBON FILM RESISTOR	RD1/4PMF101J
	R701	CARBON FILM RESISTOR	RD1/4PM302J
⚠	R703	METAL OXIDE RESISTOR	RS2LMF182J
	R707	RESISTOR (2.2M, 1/2W)	ACN-209
⚠	R715	METAL OXIDE RESISTOR	RS1LMF151J
	R751	CARBON FILM RESISTOR	RD1/2PM821J
	R752	CARBON FILM RESISTOR	RD1/2PM470J
		Other resistors	RD1/8PM□□□J

OTHERS

		ANTENNA TERMINAL 4-P	AKA1009
		PIN JACK (4P)	AKB1101
		PIN JACK (6P)	AKB1121
		SPEAKER TERMINAL 8-P	AKE-111
		JACK (2P)	AKN1006
⚠		AC OUTLET (1P)	AKP1054
		2 SERIAL F.E. MODULE ASSY	AXQ1002
		AM RF TUNING BLOCK	AXX1011
	X131	CRYSTAL RESONATOR	ASS1005

⊙ CONTROL ASSEMBLY (AWZ3268)

SEMICONDUCTORS

IC301, 311	OP–AMP IC	NJM4558S–X
IC801	RECEIVER CONTROL	PDG049–B
Q311–320	TRANSISTOR	2SC1740SLN
Q801	TRANSISTOR	RN1203
Q802, 803	TRANSISTOR	2SC1740SLN
D802	DIODE	HSS104–02

SWITCHES

S801–811	SWITCH	ASG1034
S813–831	SWITCH	ASG1034

CAPACITORS

C301, 302	ELECTR.CAPACITOR	CEAS470M50
C303, 304	CERAMIC CAPACITOR	CCCSL220J50
C307, 308	CERAMIC CAPACITOR	CKDYF103Z50
C311, 312	AUDIO FILM CAPADITOR	CFTXA334J50
C313, 314	MYLOR FILM CAPACITOR	CQMA393K50

Mark	No.	Description	Parts No.
	C315, 316	AUDIO FILM CAPACITOR	CFTXA124J50
	C317, 318	MYLOR FILM CAPACITOR	CQMA103K50
	C319, 320	MYLOR FILM CAPACITOR	CQMA393K50
	C321, 322	MYLOR FILM CAPACITOR	CQMA392K50
	C323, 324	MYLOR FILM CAPACITOR	CQMA153J50
	C325, 326	CERAMIC CAPACITOR	CKDYB102K50
	C327, 328	MYLOR FILM CAPACITOR	CQMA332K50
	C329, 330	CERAMIC CAPACITOR	CKDYB471K50
	C339, 340	CERAMIC CAPACITOR	CCCSL101J50
	C343, 345	ELECTR.CAPACITOR	CEAS101M16
	C801	ELECTROLYTIC CAPACIT	CEJA4R7M50
	C802	ELECTROLYTIC CAPACIT	CEJA0R1M50
	C803	ELECTR.CAPACITOR	CEJA221M6
	C804	CERAMIC CAPACITOR	CKDYF103Z50
	C805	CERAMIC CAPACITOR	CKDYF473Z50
	C807, 808	CERAMIC CAPACITOR	CKDYF473Z50
	C809	ELECTROLYTIC CAPACIT	CEJA100M35
RESISTORS			
	VR302	VARIABLE (500k−X1)	ACS1046
	VR311−315	VR	ACU1020
		Other resistors	RD1/8PM□□□J
OTHERS			
		FL SPACER	AEB1120
		REMOTE RECEIVER UNIT	AXX1010
	V801	FL TUBE	AAV1090
	X801	CERAMIC OSCILLATOR	ASS1022

TRANS ASSEMBLY

No parts are supplied with the TRANS ASSEMBLY.

6. ADJUSTMENTS

TUNER SECTION

- Set the volume to"MIN".
- Set the FUNCTION to"TUNER".

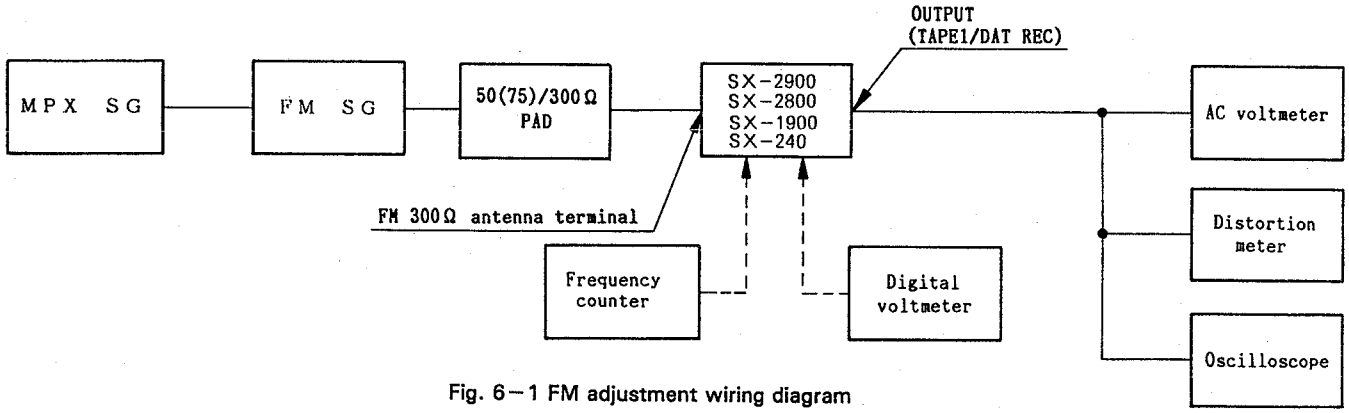


Fig. 6−1 FM adjustment wiring diagram

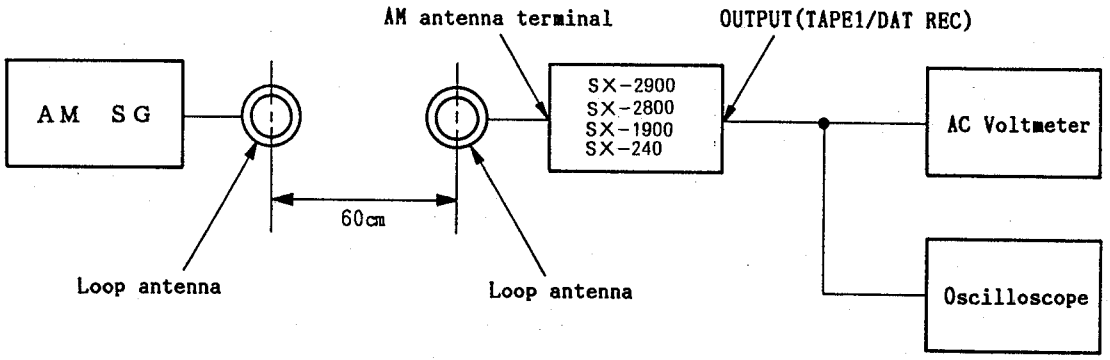


Fig. 6−2 AM adjustment wiring diagram

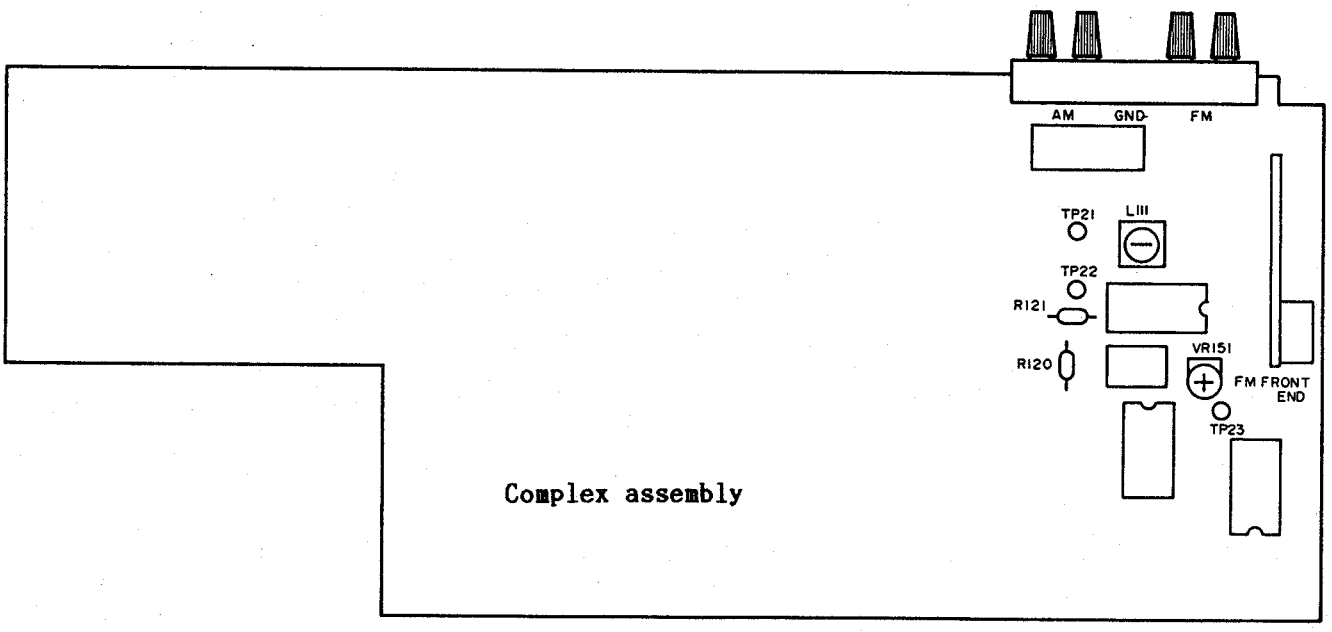


Fig. 6−3 Adjustment locations

FM TUNER SECTION ADJUSTMENT

- For connections and points to be adjusted, refer to Fig. 6−1 and 6−3.
- Set the BAND selector to"FM".
- Perform VCO adjustment after turning the power ON, two minutes or more.

Note: Stereo modulation: Main 1kHz L+R±68.25Hz dev.
Pilot 19kHz ±6.75kHz dev.

Step No.	Adjustment Title	FM SG (1kHz ±75kHz dev.)		SX−2900,2800 1900,240 Reception Frequency Display	Adjustment	
		Frequency (MHz)	Level (dBμV)		Adjustment Location	Specifications
1	Detector coil T-meter adjustment (MONO)	98.0	60	98.0MHz	L111	Adjust so that the DC voltage between TP21 and TP22 is 0 ±50mv.
2	Checking front end sensitivity (MONO)	98.0	—	98.0MHz	—	Check that the practical sensitivity is 10 dBμV or less.
3	VCO adjustment (MONO)	98.0 (No modulation)	60	98.0MHz	VR151	Adjust so that the frequency between TP23 and GND is 76 ±0.5kHz.
4	Checking stereo distortion (STEREO)	98.0	60	98.0MHz	—	Check that the stereo distortion is 1.5% or less.
		Stereo modulation (Note)				
5	Checking separation (STEREO)	98.0	60	98.0MHz	—	Check that the separation is 25 dB or more (at 1kHz).
6	Check lighting level of TUNED and STEREO IND. (STEREO)	98.0	—	98.0MHz	R121 *1	FOR TUNED IND. 24 dBμV ±15 dB. FOR STEREO IND. ±3 dB of TUNED IND. lighting level.

*1. Remove the R121 (11kΩ) from the complex assembly if the Tuning indicator fails of light up.

AM TUNER SECTION ADJUSTMENT

- For connections and points to be adjusted, refer to Fig. 6−2 and 6−3.
- Set the BAND selector to"AM"

Step No.	Adjustment Title	AM SG		SX−2900,2800, 1900,240 Reception Frequency Display	Adjustment	
		Frequency	Level		Adjustment Location	Specifications
1	Checking front end sensitivity	1000kHz (Modulation ON)	—	1000kHz	—	Check that the practical sensitivity is 75 dBμV/m or less.
2	Check lighting level of TUNED IND.	1000kHz	—	1000kHz	R120 *2	65dBμV/m or less

*2. Remove the R120 (5.6kΩ) from the complex assembly if the Tuning indicator fails of light up.

6. RÉGLAGE

SECTION TUNER

- Régler le volume sur "MIN".
- Régler le sélecteur de fonction sur "TUNER".

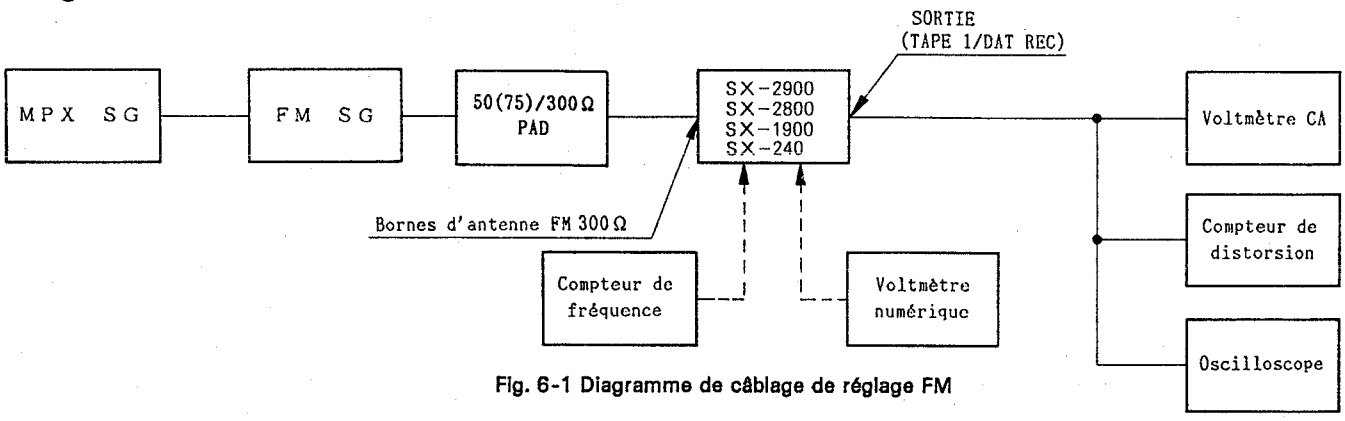


Fig. 6-1 Diagramme de câblage de réglage FM

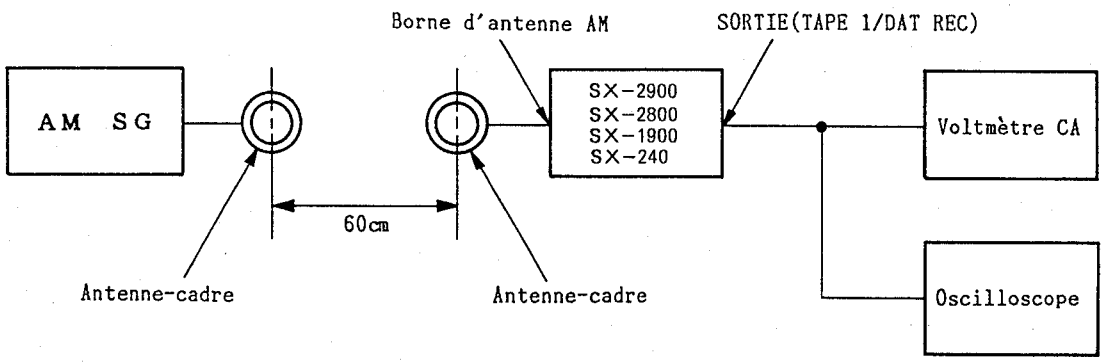


Fig. 6-2 Diagramma de câblage de réglage AM

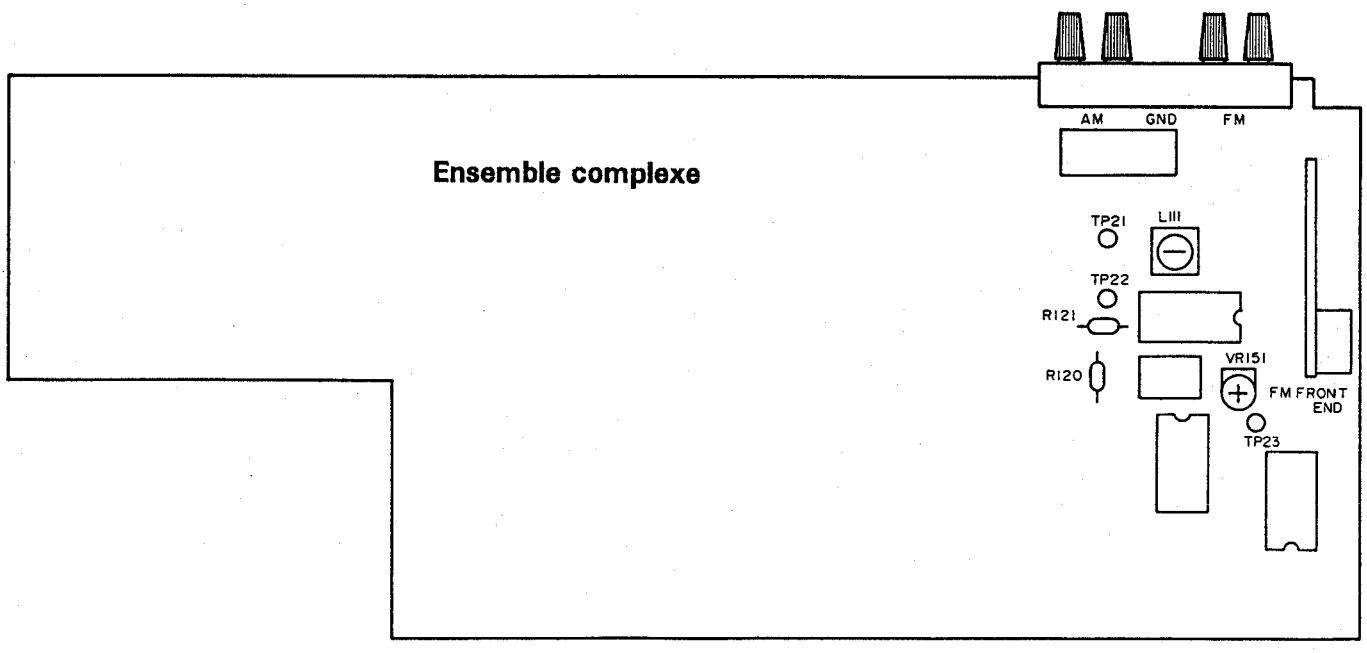


Fig. 6-3 Emplacements de réglage

RÉGLAGE DE SECTION TUNER FM

- Se reporter aux figures 6−1 et 6−3 pour les connexions et points à régler.
- Placer le sélecteur de BANDE sur "FM".
- Effectuer le réglage d'oscillateur commandé par variation de tension (VCO) deux minutes ou plus après la mise sous tension (ON).

Note: Modulation stéréo: Principal 1 kHz G+D ±68,25 Hz d'écart
Pilote 19 kHz ±6,75 kHz d'écart

Etape N°	Désignation de réglage	FM SG (1 kHz ±75 kHz d'écart)		SX−2900,2800 1900,240 Affichage de fréquence de réception	Réglage	
		Fréquence (MHz)	Niveau (dBμ)		Emplacement de réglage	Spécifications
1	Réglage de compteur T de bobine de détecteur (MONO)	98,0	60	98,0 MHz	L111	Régler pour que la tension CC entre TP21 et TP22 soit de 0 ±50 mV.
2	Contrôle de sensibilité d'extrémité avant (MONO)	98,0	—	98,0 MHz	—	Vérifier que la sensibilité pratique est de 10 dBμV ou moins.
3	Réglage VCO (MONO)	98,0 (Sans modulation)	60	98,0 MHz	VR151	Régler pour que la fréquence entre TP23 et la terre soit de 76 ±0,5 kHz.
4	Contrôle de distorsion stéréo (STEREO)	98,0	60	98,0 MHz	—	Vérifier que la distorsion stéréo est 1,5 % ou moins.
		Modulation stéréo (Note)				
5	Contrôle de séparation (STEREO)	98,0	60	98,0 MHz	—	Vérifier que la séparation est 25 dB ou plus (à 1 kHz).
6	Contrôler l'intensité d'éclairage du témoin d'ACCORD et de STEREO (STEREO)	98,0	—	98,0 MHz	R121 *1	Pour témoin d'ACCORD 24 dBV ±15 dB Pour témoin STEREO ±3 dB de l'intensité d'éclairage du témoin d'ACCORD.

* 1. Déposer le R121 (11 kΩ) de l'ensemble complexe si le témoin d'accord manque de s'allumer.

REGLAGE DE SECTION TUNER AM

- Se reporter aux figures 6−2 et 6−3 pour les connexions et points à régler.
- Placer le sélecteur de BANDE sur "AM"

Etape N°	Désignation de réglage	AM SG		SX−2900,2800, 1900,240 Affichage de fréquence de réception	Réglage	
		Fréquence	Niveau		Emplacement de réglage	Spécifications
1	Contrôle de sensibilité d'extrémité avant	1000 kHz (Modulation activée)	—	1000 kHz	—	Vérifier que la sensibilité pratique est 75 dB ou moins.
2	Contrôler l'intensité d'éclairage du témoin d'ACCORD	1000 kHz	—	1000 kHz	R120 *2	65 dBμV/m ou moins

* 2. Déposer le R120 (5,6 kΩ) de l'ensemble complexe si le témoin d'accord manque de s'allumer

6. AJUSTE

SECCIÓN DEL SINTONIZADOR

- Ajuste el volumen a la posición "MIN".
- Ajuste la función (FUNCTION) a la posición "TUNER".

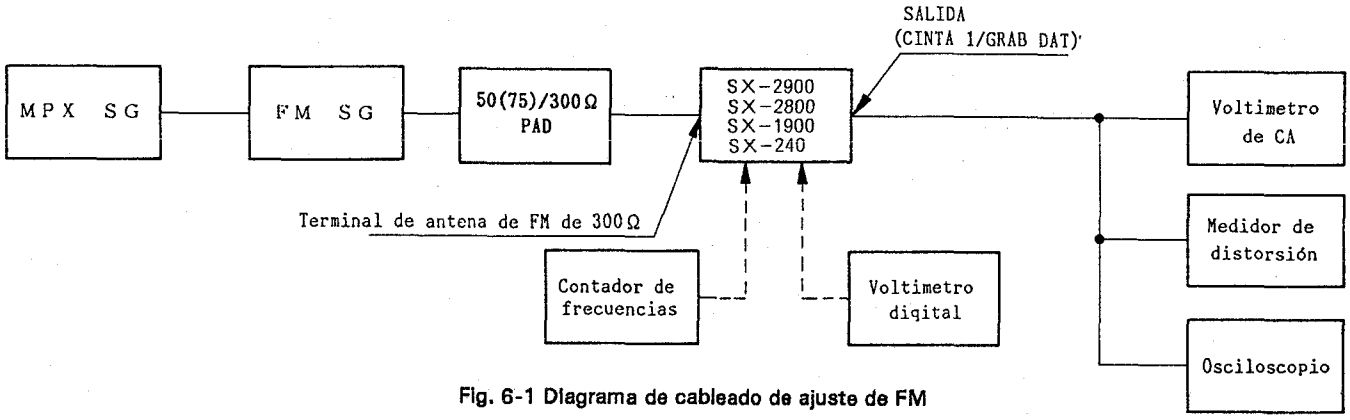


Fig. 6-1 Diagrama de cableado de ajuste de FM

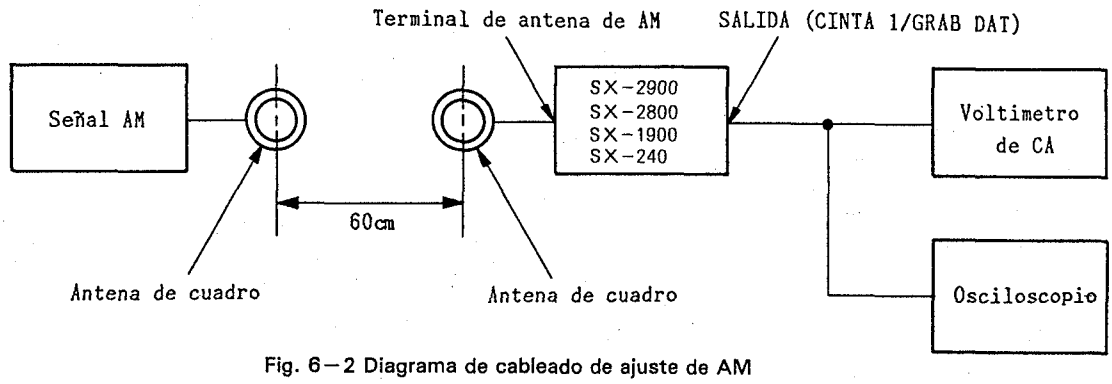


Fig. 6—2 Diagrama de cableado de ajuste de AM

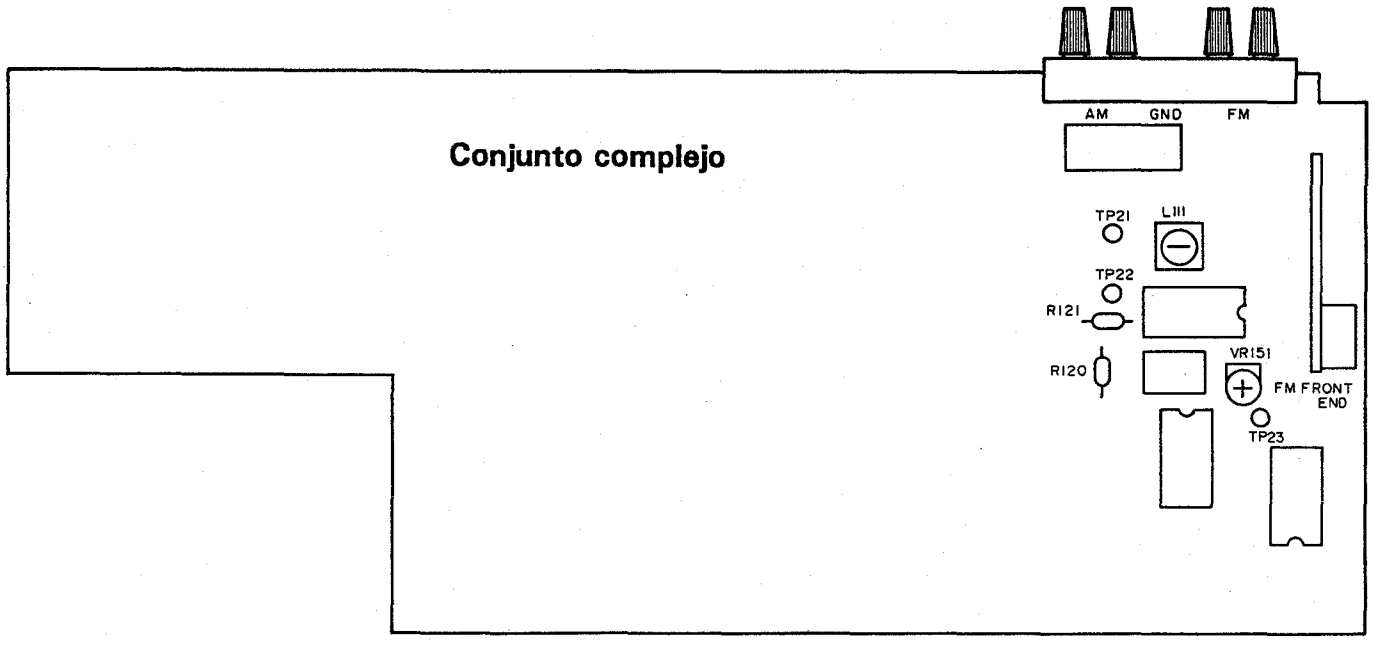


Fig. 6-3 Puntos de ajustes

AJUSTE DE LA SECCIÓN DEL SINTONIZADOR DE FM

- Para las conexiones y puntos a ser ajustados, refiérase a las figuras 6−1 y 6−3.
- Ajuste el selector BAND a "FM".
- Realice el ajuste VCO luego de los dos minutos o más de haber encendido la unidad.

Nota: Modulación estereofónica: Principal 1 kHz I+D ± 68,25 Hz de desviación.
Señal piloto 19 kHz ± 6,75 kHz de desviación.

Paso	Título de ajuste	Señal de FM (1 kHz ± 76 kHz de desviación)		Presentación de frecuencia de recepción del SX−2900,2800, 1900,240	Ajuste	
		Frecuencia (MHz)	Nivel (dBμ)		Punto de ajuste	Especificaciones
1	Ajuste del medidor T de la bobina de detección (MONOFÓNICO)	98,0	60	98,0 MHz	L111	Ajuste de modo que el voltaje de CC entre los terminales TP21 y TP22 sea 0 ±50 mV.
2	Comprobación de sensibilidad de sección de sintonía (MONOFÓNICO)	98,0	—	98,0 MHz	—	Compruebe que la sensibilidad real sea de 10 dBμV o menos.
3	Ajuste de VCO (MONOFÓNICO)	98,0 (Sin modulación)	60	98,0 MHz	VR151	Ajuste de modo que la frecuencia entre el terminal TP23 y masa (GND) sea 76 ± 0,5 kHz.
4	Comprobación de distorsión estereofónica (ESTÉREO)	98,0	60	98,0 MHz	—	Compruebe que la distorsión estereofónica sea de 1,5 % o menos.
		Modulación estereofónica (Nota)				
5	Comprobación de separación (ESTÉREO)	98,0	60	98,0 MHz	—	Compruebe que la separación sea de 25 dB o más (en 1 kHz).
6	Compruebe el nivel de iluminación de TUNED y STEREO IND. (ESTÉREO)	98,0	—	98,0 MHz	R121 *1	Para TUNED IND. 24 dBμV ±15 dB Para STEREO IND. ±3 dB del nivel de iluminación de TUNED IND.

* 1. Si el indicador de sintonía no se enciende desconecte la resistencia R121 (11 kΩ) del conjunto complejo.

AJUSTE DE LA SECCIÓN DEL SINTONIZADOR DE AM

- Para las conexiones y puntos a ser ajustados, refiérase a las figuras 6−2 y 6−3.
- Ajuste el selector BAND a la posición "AM"

Paso	Título de ajuste	Señal de AM		Presentación de frecuencia de recepción del SX−2900,2800, 1900,240	Ajuste	
		Frecuencia	Modulación		Punto de ajuste	Especificaciones
1	Comprobación de sensibilidad de sección de sintonía	1000 kHz (Modulación ON)	—	1000 kHz	—	Compruebe que la sensibilidad real sea de 75 dBμB/m o menos.
2	Compruebe el nivel de iluminación de TUNED IND.	1000 kHz		1000 kHz	R120 *2	65 dBμV/m o menos.

* 2. Si el indicador de sintonía no se enciende desconecte la resistencia R120 (5,6 kΩ) del conjunto complejo.

7. FOR SX−2900/SD, SX−2800/KUC, SX−1900/KUC, SD AND SX−240/KUC TYPES

CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

The SX−2900/SD, SX−2800/KUC, SX−1900/KUC, SD and SX−240/KUC types are the same as the SX−2900/KUC type with the exception of the following sections.

Mark	Symbol & Description	Part No.						Remarks
		SX-2900/ KUC type	SX-2900/ SD type	SX-2800/ KUC type	SX-1900/ KUC type	SX-1900/ SD type	SX-240/ KUC type	
	SP SWITCH Assembly	Non supply	Non supply	Non supply	Non supply	Non supply	Non supply	*1
	VR Assembly	Non supply	Non supply	.....	.....	.....	Non supply	
◉	COMPLEX Assembly	AWZ3267	AWZ3269	AWZ3271	AWZ3273	AWZ3273	AWZ3293	
◉	CONTROL Assembly	AWZ3268	AWZ3270	AWZ3272	AWZ3274	AWZ3274	AWZ3268	
⚠	Q1, Q2 Transistor	2SC3181N	2SC3181N	2SC3181N	2SC3180N	2SC3180N	2SC3180N	
⚠	Q3, Q4 Transistor	2SA1264N	2SA1264N	2SA1264N	2SA1263N	2SA1263N	2SA1263N	
⚠	S2 Line voltage selector switch (AC110V,120-127V,220V,240V)	.....	AKX−507	.....	.....	AKX−507	.....	
⚠	S4 Line voltage selector switch (AC110-127V/220V-240V)	.....	AKX1004	.....	.....	.....	.....	
⚠	S3 Slide switch (9k/10k)	.....	ASH−004	.....	.....	ASH−004	.....	
⚠	T1 Power transformer	ATS1248	ATS1249	ATS1248	ATS1118	ATS1130	ATS1118	
⚠	AC Power cord	ADG1057	ADG1015	ADG1057	ADG1057	ADG1015	ADG1057	
	R1 Resistor (750Ω/10W, R1)	ACN1083	ACN1083	ACN1083	.....	.....	.....	
	R1 Resistor (620Ω/10W, R1)	.....	.....	.....	ACN1082	ACN1082	ACN1082	
⚠	FU1 Fuse (4A/125V)	AEK−100	.....	AEK−100	.....	.....	.....	
⚠	FU1 Fuse (3.15A/125V)	.....	.....	.....	AEK1004	.....	AEK1004	
⚠	FU1 Fuse (2A/125V)	.....	AEK−103	.....	.....	.....	.....	
⚠	FU1 Fuse (1.5A/125V)	.....	.....	.....	.....	AEK−104	.....	
⚠	FU2 Fuse (1.6A/125V)	.....	.....	.....	.....	AEK−121	.....	
⚠	FU2 Fuse (2A/125V)	.....	AEK−122	.....	.....	.....	.....	
⚠	FU3, FU4 Fuse (1.25A/125V)	AEK−120	AEK−120	AEK−120	.....	.....	.....	
	Master VOL assembly	AAB1207	AAB1207	.....	.....	.....	AAB1207	
	Master VOL knob	.....	.....	AAB1134	AAB1134	AAB1134	.....	
	Tact knob	AAD1398	AAD1398	AAD1398	.....	.....	AAD1398	
	Insulator assembly	AMR2140	AMR2140	.....	.....	.....	.....	
	Leg assembly	.....	.....	AEC1323	AEC1323	AEC−784	AEC1323	

Mark	Symbol & Description	Part No.						Remarks
		SX-2900/ KUC type	SX-2900/ SD type	SX-2800/ KUC type	SX-1900/ KUC type	SX-1900/ SD type	SX-240/ KUC type	
	Screw	ABA1009	ABA1009	.....	.....	.....	.....	
	Washer	ABF1017	ABF1017	.....	.....	.....	.....	
	Coil spring	ABH1064	ABH1064	.....	.....	.....	ABH1064	
	Front panel	AMB1753	AMB1753	AMB1752	AMB1751	AMB1751	AMB1754	
	Acrylic panel	AAK2092	AAK2092	AAK2091	AAK2091	AAK2091	AAK2092	
⚠	Fuse holder	.....	AKR-038	.....	.....	AKR-038	.....	
	Screw (For S3, Slide switch)	.....	BMZ26P040FCU	.....	.....	BMZ26P040FCU	.....	
	Nut (For VR301)	.....	.....	NK70FUC	NK70FUC	NK70FUC	.....	
	Packing case	AHD1985	AHD1985	AHD1984	AHD1983	AHD1983	AHD1986	
	Remote control unit (CU-SX021)	AXD1186	AXD1186	.....	.....	.....	AXD1186	
	Operating instructions (English)	ARB1286	ARB1286	ARB1285	ARB1285	ARB1285	ARB1298	
	Operating instructions	.....	ARC1240	.....	.....	ARC1240	.....	

*1: The SP SWITCH assembly of SX-2900/KUC, SD and SX-240/KUC types are identical assemblies.
The SP SWITCH assembly of SX-1900/KUC and SX-1900/SD types are also identical assemblies.

SP SWITCH Assembly (SX-2800/KUC, SX-1900/KUC and SD types)

The SP SWITCH Assembly (SX-2800/KUC, SX-1900/KUC and SD types) is the same as the SP SWITCH Assembly (SX-2900/KUC type) with the exception of the following sections.

Mark	Symbol & Description	Part No.				Remarks
		SX-2900/ KUC type	SX-2800/ KUC type	SX-1900/ KUC type	SX-1900/ SD type	
⚠	S1 Power switch	.....	ASG1027	ASG1027	ASG1027	

VR Assembly (SX-2900/SD and SX-240/KUC types)

The VR Assembly (SX-2900/SD and SX-240/KUC types) is the same as the VR Assembly (SX-2900/KUC type) with the exception of the following sections.

Mark	Symbol & Description	Part No.			Remarks
		SX-2900/KUC type	SX-2900/SD type	SX-240/KUC type	
	Q361	RN1203	.....	.....	
	C364	CKDYX104M25	.....	.....	
	R363	RD1/8PM182J	.....	.....	
	VR361	ACX1035	ACX1035	ACX1052	

COMPLEX Assembly (AWZ3269, AWZ3271, AWZ3273 and AWZ3293)

The COMPLEX Assembly (AWZ3269, AWZ3271, AWZ3273 and AWZ3293) is the same as the COMPLEX Assembly (AWZ3267) with the exception of the following sections.

Mark	Symbol & Description	Part No.					Remarks
		AWZ3267	AWZ3269	AWZ3271	AWZ3273	AWZ3293	
	Q513, Q514	2SC1845	2SC1845	2SC1845	.....	.....	
	Q551, Q552	2SC3298	2SC3298	2SC3298	2SC2235	2SC2235	
	Q553, Q554	2SA1306	2SA1306	2SA1306	2SA965	2SA965	
	Q621, Q622	2SC2240	2SC2240	2SC2240	.....	.....	
	Q751	RN1201	RN1201	.....	.....	RN1201	
	Q752	2SC2458	2SC2458	.....	.....	2SC2458	
	D513, D514, D621–D624,	HSS104–02	HSS104–02	HSS104–02	.....	.....	
	D714, D754, D757	HSS104–02	HSS104–02	.....	.....	HSS104–02	
	D751, D752	1SR139–400	1SR139–400	.....	.....	1SR139–400	
	D753	HZS6A2L	HZS6A2L	.....	.....	HZS6A2L	
	RY751	ASR1027	ASR1027	.....	.....	ASR1027	
	RY561	ASR–112	ASR–112	ASR–112	ASR–111	ASR–111	
	T751 Power transformer	ATT1011	ATT1015	.....	.....	ATT1011	
	C153, C154	CQMA152J50	CQMA122J50	CQMA152J50	CQMA122J50	CQMA152J50	
	C165, C166	.....	.....	.....	*1 CKCYB331K50	.....	
	C621, C622	CEAS2R2M50	CEAS2R2M50	CEAS2R2M50	.....	.....	
	C701, C702 (6800μF/DC63V)	ACH1137	ACH1137	ACH1137	.....	.....	
	C701, C702 (4700μF/DC50V)	.....	.....	.....	ACH–252	ACH–252	
	C751 (0.01μF/150V)	ACG1005	ACG1005	.....	.....	ACG1005	
	C752	CEAS471M25	CEAS471M25	.....	.....	CEAS471M25	
	C753	CEAS470M10	CEAS470M10	.....	.....	CEAS470M10	
	R511, R512	.....	.....	.....	RD1/8PM272J	RD1/8PM272J	
	R513–R516	RD1/8PM391J	RD1/8PM391J	RD1/8PM391J	.....	.....	
	R517, R518	RD1/8PM103J	RD1/8PM103J	RD1/8PM103J	.....	.....	
	R521, R522	RD1/4PM432J	RD1/4PM432J	RD1/4PM432J	RD1/4PM562J	RD1/4PM562J	
⚠	R608	RS2LMF332J	RS2LMF332J	RS2LMF332J	RS2LMF911J	RS2LMF911J	
⚠	R610	RS2LMF272J	RS2LMF272J	RS2LMF272J	RD1/4PMF100J	RD1/4PMF100J	
	R621, R622	RD1/8PM472J	RD1/8PM472J	RD1/8PM472J	.....	.....	
	R623, R624	RD1/8PM153J	RD1/8PM153J	RD1/8PM153J	.....	.....	
	R625	RD1/4PMF101J	RD1/4PMF101J	RD1/4PMF101J	.....	.....	
⚠	R703	RS2LMF182J	RS2LMF182J	RS2LMF182J	RS2LMF122J	RS2LMF122J	
	R707	ACN–209	.....	ACN–209	*2 ACN–209	ACN–209	
	R708	.....	RD1/4PM621J	.....	.....	.....	
	R751	RD1/2PM821J	RD1/2PM821J	.....	.....	RD1/2PM821J	
	R752	RD1/2PM470J	RD1/2PM470J	.....	.....	RD1/2PM470J	
	R754	RD1/8PM224J	RD1/8PM224J	.....	.....	RD1/8PM224J	
	R755	RD1/8PM223J	RD1/8PM223J	.....	.....	RD1/8PM223J	
	R756	RD1/8PM102J	RD1/8PM102J	.....	.....	RD1/8PM102J	
	Jack (2P)	AKN1006	AKN1006	AKN1006	.....	AKN1006	

*1, *2 : Cut the parts *1 and *2 when the specification of the SX–1900/SD applies.

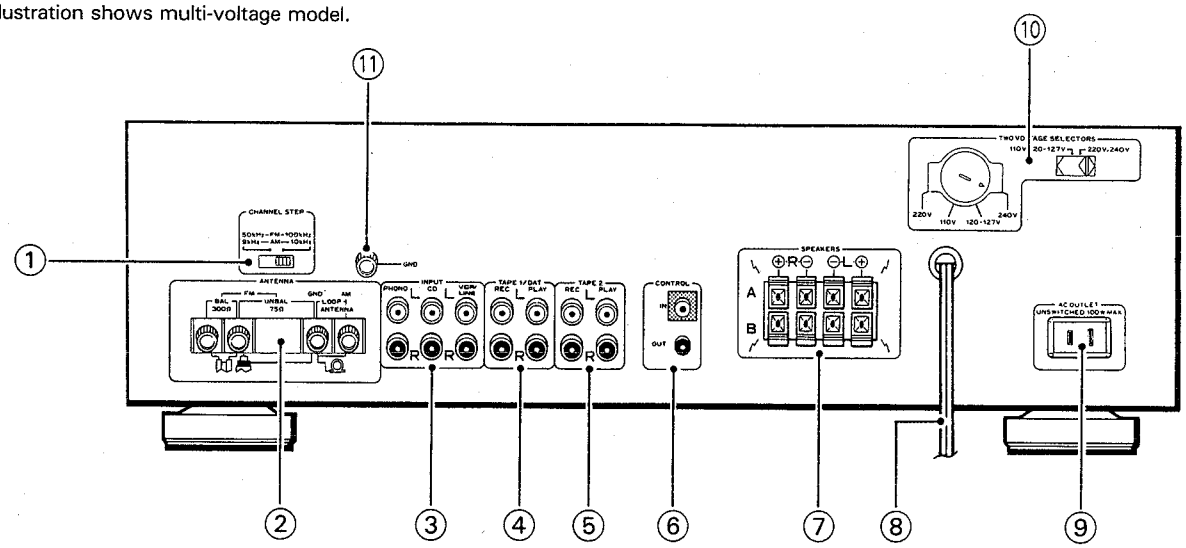
CONTROL Assembly (AWZ3270, AWZ3272 and AWZ3274)

The CONTROL Assembly (AWZ3270, AWZ3272 and AWZ3274) is the same as the CONTROL Assembly (AWZ3268) with the exception of the following sections.

Mark	Symbol & Description	Part No.				Remarks
		AWZ3268	AWZ3270	AWZ3272	AWZ3274	
	Q802, Q803	2SC1740SLN	2SC1740SLN	.....	.....	
	D802	HSS104-02	HSS104-02	.....	.....	
	S825	ASG1034	ASG1034	ASG1034	.....	
	S831	ASG1034	ASG1034	.....	.....	
	VR301 (100k×2)	.....	.....	ACT1040	ACT1040	
	R811, R812	RD1/8PM472J	RD1/8PM472J	.....	.....	
	Remote receiver unit	AXX1010	AXX1010	.....	.....	

8. PANEL FACILITIES

• Illustration shows multi-voltage model.



① CHANNEL STEP switch

② FM/AM ANTENNA terminals

Use these antenna terminals for receiving FM and AM broadcasts.

③ INPUT jacks

PHONO ..... Connect to the output cables from a turntable.
CD..... Connect to the output jacks of a compact disc player.
VCR/LINE..Connect to the output jacks of a video cassette recorder, etc.

④ TAPE 1/DAT jacks

Connect these jacks to the cassette deck or digital audio tape deck.

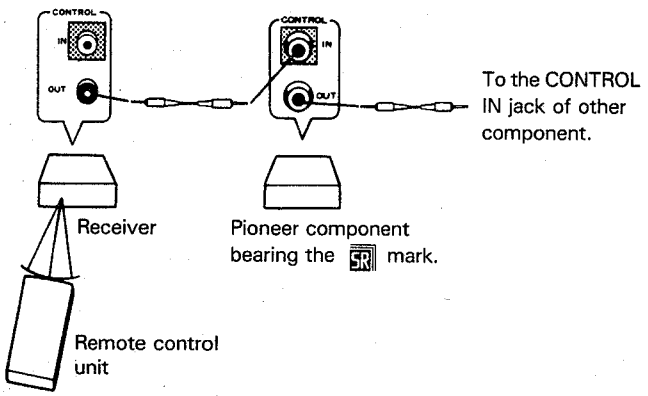
⑤ TAPE2 jacks

Connect these jacks to the cassette deck.

⑥ CONTROL IN/OUT jacks

IN: Connect this jack to other Pioneer components when using those components to control this unit.
OUT: Connect this jack to other Pioneer components when using the remote control of this unit to control the other components.

NOTE:
The receiver's remote sensor does not function when a plug is inserted in the IN jack. To operate, point the remote control unit at the remote sensor on the component to which the receiver's IN jack is connected.



⑦ SPEAKERS terminals

A: Connect to a first set of speakers.
B: Connect to a second set of speakers.

NOTE:
No sound will be heard through the speakers when both A and B switches are depressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

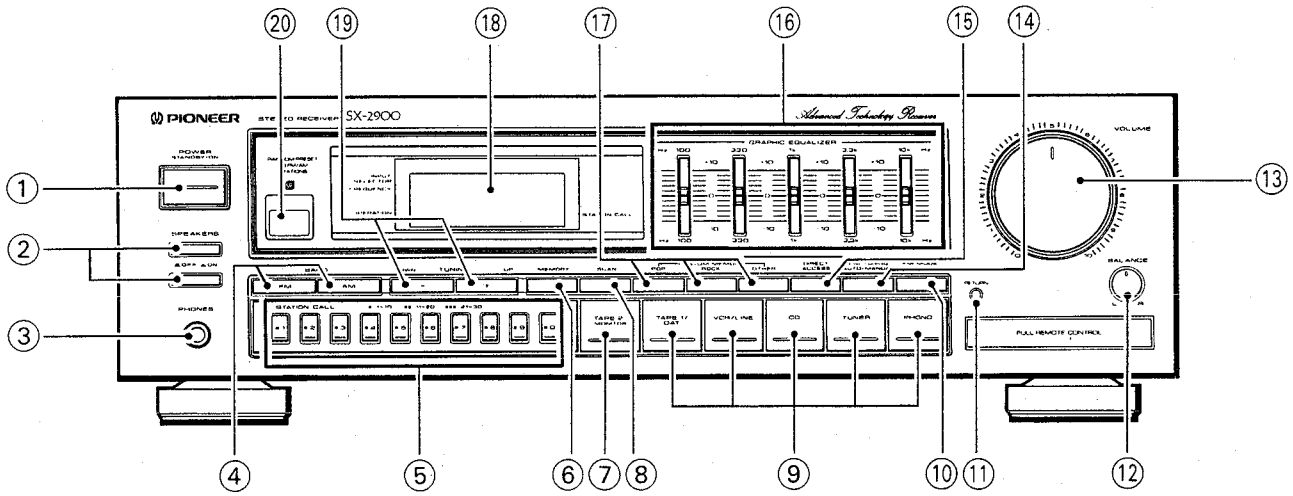
⑧ Power cord

⑨ AC OUTLETS

⑩ VOLTAGE SELECTORS

⑪ GND terminal

Connect to the ground lead of a turntable.



① POWER (STANDBY/ON) switch

- The accessory remote control unit can also be used to operate STANDBY/ON and SLEEP function of this switch.
- The POWER switch selects the transformer secondary even in STANDBY position. The unit circuitry will work as long as the power cord is connected to a wall socket.
- When not using the unit for a long period, disconnected the power cord.

[FOR MULTI-VOLTAGE MODEL]
Even when the power is in STANDBY, the VOLUME control knob indicator remains lit.

NOTE:
When the power is initially turned ON, muting will be applied to prevent sound from being output for about 5 seconds.

② SPEAKERS switches (■ OFF, ▬ ON)

These are used to select the speaker through which you wish to listen.
A: When the speakers connected to A terminals are in use.
B: When the speakers connected to B terminals are in use.

- Turn both A and B speakers to OFF position when only the HEADPHONES are in use.

NOTE:
No sound will be heard through the speakers when both A and B switches are depressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

③ PHONES jack

Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B switches to the OFF position.

④ BAND Selector buttons

These buttons are used to select either AM or FM reception.
AM: Push this button for AM reception.
FM: Push this button for FM reception.

⑤ STATiON CALL buttons

These buttons are used to preset and recall desired broadcasting stations.

⑥ MEMORY button

When the unit is in the frequency display mode, pressing this button will result in the memorization of the current broadcast band, reception frequency, and FM AUTO/MONO mode.
This button is also used to input custom memory names.

⑦ TAPE 2 MONITOR button

Press when listening to tape playback with the cassette deck 2.

⑧ SCAN button

This button is used for both station memory scan and custom memory scan.

⑨ Function buttons

Use to select playback source.
[TAPE 1 /DAT] — Press when listening to tape playback with the cassette deck 1 or digital audio tape deck.
[VCR/LINE] — Press when listening to programs from a component connected to the VCR/LINE terminals.
[CD] — Press when listening to compact disc playback with a CD player.
[TUNER] — Press when listening to AM or FM broadcasts with a tuner.
[PHONO] — Press when listening to record playback on a turntable.

⑩ FM MODE AUTO/MONO selector button

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the FM MONO indicator is lighted.

Auto stereo mode:
Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.

Monaural mode:
When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:
This button has no effect on reception of AM broadcasts.

⑪ RETURN button

This is helpful during troubleshooting or when no sound is output. Pressing this button returns the receiver to the following settings, the sound level being controlled by VOLUME control.

- TAPE 2 MONITOR OFF
- FUNCTION TUNER
- BAND FM*

* The last FM broadcast you were listening to will be received. When reception is not possible, search begins for frequency that can be received.

NOTE:
If no sound is output after the RETURN button is pressed, make sure that SPEAKERS switches are turned on.

⑫ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the L position and if the left side is louder, turn toward the R position.

⑬ VOLUME control

Use to adjust volume level.

⑭ FM TUNING AUTO/MANUAL button

Works during FM reception.
Use this button to select either the AUTO mode or the MANUAL mode. When the "AUTO" indicator is lit, the receiver is in the AUTO mode.

⑮ DIRECT ACCESS tuning button

When this button is pressed, the STATION CALL buttons function as ten-key number buttons for direct input of the desired reception frequency. Press again to cancel this mode.
If the input station falls outside of the receiver's tuning range, the display section will display a message: "UPPER" if the frequency is too high and "LOWER" if it is too low.

⑯ GRAPHIC EQUALIZER controls

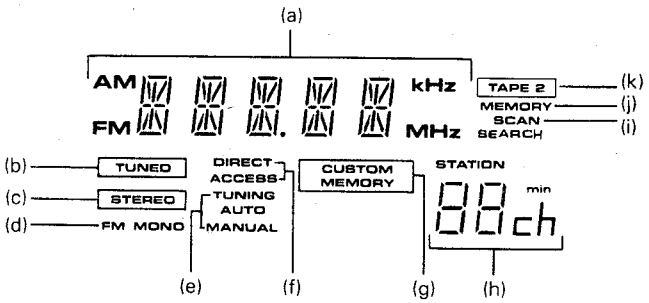
The equalizer is divided into five frequency ranges (100 Hz, 330 Hz, 1 kHz, 3.3 kHz, 10 kHz) to tailor music to the individual taste of the listener.

⑰ CUSTOM MEMORY buttons

Stations can be assigned to STATION CALL buttons according to the genre of material broadcast (POP, ROCK, OTHER). You can recall a particular genre, and scan all the stations of that genre with Memory Scan until you reach the desired one.

⑱ OPERATION DISPLAY panel

(a) Indicates the function or frequency by the function switches.
(b) TUNED indicator
(c) FM STEREO indicator
(d) FM MONO indicator
(e) TUNING AUTO/MANUAL indicator
(f) DIRECT ACCESS tuning indicator
(g) CUSTOM MEMORY indicator
(h) Indicates channel, STATION CALL number or sleep time.
(i) SCAN indicator
(j) MEMORY indicator
(k) TAPE 2 monitor indicator.



⑲ TUNING buttons (DOWN, UP)

UP: The FM or AM band is scanned in the direction of increasing frequency.
DOWN: The opposite operation to that of the UP button takes place.

⑳ Remote sensor window

9. SPECIFICATIONS

Amplifier Section

Continuous Average Power Output is 65 watts* per channel, min., at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.07 % total harmonic distortion.**

Continuous Power Output (both channel driven)**
20 Hz – 20 kHz, T.H.D. 0.07 %, 8 Ω ..... 65 W + 65 W
Dynamic power output (with EIA test signal)
2/4/8 Ω ..... 145 W/130 W/90 W
Total Harmonic Distortion**
1 kHz, 65 W, 8 Ω ..... 0.01 %
Input (Sensitivity/ Impedance)
PHONO ..... 2.5 mV/47 kΩ
CD, VCR/LINE, TAPE 1/DAT, TAPE 2 ..... 150 mV/22 kΩ
Phono Overload Level (T.H.D. 0.01 %, 1,000 Hz)
PHONO ..... 130 mV
Output Level
TAPE REC ..... 150 mV/2.2 kΩ
Frequency Response
PHONO (RIAA Equalization) ..... 20 Hz to 20,000 Hz ±0.5 dB
CD, VCR/LINE, TAPE 1/DAT, TAPE 2..10 Hz to 70,000 Hz $^{+0.5}_{-3.0}$ dB
Signal-to-Noise Ratio (IHF, short circuited, A network)
PHONO ..... 72 dB
CD, VCR/LINE, TAPE 1/DAT, TAPE 2 ..... 96 dB
Graphic Equalizer frequency band ..... 100 Hz, 330 Hz, 1 kHz, 3.3 kHz, 10 kHz, ±8 dB

FM Tuner Section

Frequency range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... 10.8 dBf, IHF (0.95 μV/75 Ω)
50 dB Quieting Sensitivity
MONO ..... 15.3 dBf (1.6 μV/75 Ω)
STEREO ..... 37.1 dBf (19.5 μV/75 Ω)
Signal-to-Noise Ratio
MONO ..... 78 dB (at 85 dBf)
STEREO ..... 75 dB (at 85 dBf)
Distortion
STEREO ..... 0.3 % (1 kHz)
Alternate Channel Selectivity ..... 55 dB (400 kHz)
Stereo Separation ..... 35 dB (1 kHz)
Frequency Response ..... 30 Hz to 15 kHz (±1 dB)
Antenna Input ..... 300 Ω balanced, 75 Ω unbalanced

AM Tuner Section

Frequency range, when 10 kHz step ..... 530 kHz to 1,700 kHz
When 9 kHz step ..... 531 kHz to 1,602 kHz
Sensitivity
IHF, Loop antenna ..... 300 μV/m
Selectivity ..... 20 dB
Signal-to-Noise Ratio ..... 50 dB
Antenna ..... AM Loop Antenna

Miscellaneous

Power Requirements
U.S., Canadian model ..... AC 120 Volts, 60 Hz
Other destination models ..... ~AC 110 V/ 120 V–127 V/ 220 V/ 240 V (switchable), 50/60 Hz
Power Consumption
U.S., Canadian models ..... 250 W (UL), 335 VA (CSA)
Other destination models ..... 395 W
AC Outlet ..... UNSWITCHED x 1 : 100W MAX
Dimensions ..... 420 (W) X 120 (H) X 336 (D) mm
16-9/16(W) X 4-3/4 (H) X 13-1/4 (D) in
Weight (without package) ..... 7.1 kg (15 lb 10 oz)

Furnished Parts

FM T-type Antenna 1
AM Loop Antenna 1
Remote control unit 1
Dry cell battery (size "AAA" (R03/UM-4)) 2
Operating Instructions 1

* *Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier.*

** *Measured By Audio Spectrum Analyzer.*

NOTE:
Specifications and design subject to possible modification without notice due to improvements.